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ABSTRACT

Data based instruction reflects the teacher's implementation of a carefully planned system of instruction for a selected learner. The purpose is to provide documentation of the effect of instruction implemented for learner(s) with special needs; evaluate the effect of using specific instructional organization and delivery systems; perform an ongoing monitoring of the academic performance of students with special needs; make appropriate data based decisions to modify instruction based on student performance; make connections between instruction and appropriate authentic assessment; and understand the relationship between researched best practices and lesson planning. This report contains a collection of narratives from 16 preschool, elementary, and secondary teachers who have implemented data based instruction and have used collaborative action research steps to analyze the experience. The data-based instruction projects targeted students with a range of disabilities, including autism, speech and language impairments, visual and auditory processing disabilities, learning disabilities, mental retardation, and serious emotional disturbances. Each report details the classroom setting, teaching philosophy, learner characteristics, data based decisions and interventions, and outcomes. Students were helped with social interactions, oral language expression, letter-sound recognition, language arts, and work habits. (Individual reports contains references.) (CR)

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ARIZONA STATE UNIVERSITY WEST

Improving the Learning Outcomes of Preschool-Grade 12 Students with Disabilities through Collaborative Action Research and Data Based Instruction

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Spring 2002

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Data Based Instruction*

and

Collaborative Action Research

A Comparison

Data based instruction reflects the teacher's implementation of a carefully planned system of instruction for a selected learner. The purpose is to provide documentation of the impact of instruction implemented for learner(s) with special needs; evaluate the impact of using specific instructional organization and delivery systems; perform ongoing monitoring of the academic performance of students with special needs; make appropriate data based decisions to modify instruction based on student performance; make connections between instruction and appropriate authentic assessment; and understand the relationship between researched best practices and lesson planning.

Sagor (1992) describes the process of collaborative action research as involving 5 sequential steps:

1. **Formulate the Problem (by identifying issues of greatest professional concern);**
2. **Collect Data (the "heart" of the 5 step process);**
3. **Analyze Results (the "soul" of the research process);**
4. **Report Results (by inviting all interested parties to learn from the process);**
5. **Plan Action(s) (by using the findings to improve schools and classrooms).**

Thus, data based instruction can be considered a 'special case' of collaborative action research. To facilitate an understanding of how the two might be connected, the following analyis of a Data Based Instruction experience is analyzed using the Collaborative Action Research steps described above.

Data Based Instruction by Jeanette (Spring 2000)	Collaborative Action Research
Teacher My primary motivators all through my life have been fear of embarrassing myself in front of peers, fear of not meeting my own personal standards. I am learning to give myself permission to err. Students' particular needs, in whatever dimension,motivate me to find methods to maximize their progress. My own family's requirements motivate me to become accessible and efficient. I have two sons who	

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will be16 and 19 in March.

My favorite subjects to teach are reading and language arts because these areas allow student self-expression to a greater degree than, say, mathematics, although I do enjoy math instruction as well. I love to present mathematical concepts for their logic and practical application. I am enjoying American history because my goal is to present a multidimensional picture rather than the trite presentation in the textbook. I like doing art projects with my class at least once every two weeks. I've done origami, watercolor, paper weave, tessellations, and fractals so far.

I earned my BA many years ago from Cal State Long Beach (cum laude, major in Psych.) before I got married. My goal was to become a school psychologist. I entered a master's in counseling and guidance program (prerequisite to School Psych program) but only completed 12 units because money was an issue and I had gotten a job w/ the post office, which looked good at the time. Six years there. I graduated from the concurrent credential program in 1997. I worked in San Dieguito District one year at middle school. This is my 2nd year at Vista, where I am very happy due to the wonderful staff and administration at Lincoln Middle.

I am a special education teacher teaching students with disabilities in a self-contained day program. I have most of my caseload in my class for the greater part of their day. Observers tell me I am very calm and patient in the classroom. I like working with others and pooling experiences. I despise backbiting. I like finding positive qualities in everyone.

Setting

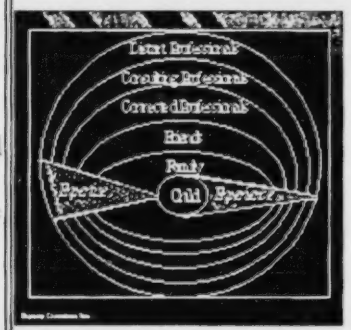
I am thespecial educator for students with disabilities (learning handicaps) in an SDC classroom (special day class). I currently have 15 students on my caseload; they range from 10 - almost 14 years old, grades 6, 7, & 8. Two are Limited English Proficient, 2 are redesignated Fluent English Proficient. English is the primary language for the other 11. Two are African-American. 12 out of the 15 receive free or subsidized breakfast and lunch. Most are with me for 63% of their school day whereI teach them language arts, reading, math, social studies, science, and study skills.

The school is year round, two months on, one month off. I am blessed with a wonderful aide who comes in 1/2 way through 2nd period due to family needs and leaves one hour after school is over. We are a great match. School begins very early, at 7:12 AM. 5 students take the special ed. bus which sometimes arrives as early as 6:35 AM, meaning that they get up around 5:00 AM.

Philosophy:

In this section of her report, Jeanette described the context in which she conducted her data based instruction project.

Notice how Jeanette implemented guiding principle #1:



Who should be included in

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When I think of various management techniques and my own teaching philosophy, I conclude that no one method will work long term unless a positive relationship has been established between student and teacher. I have established this positive relationship through taking a personal interest in the life of each of my students, by listening to them, by being "fair", by being consistent and accessible. They know that I care about them.

I have utilized verbal as well as facial (smiles, nods) positive reinforcement extensively in my classroom management, which works very well because my students as a whole have come to trust me and value my approval. I try to redirect the latter towards establishment of inner motivation and compass through having students self-evaluate assignments and determine their own goals, to an extent. I still set the standard for the class. I also include extrinsic motivators for classroom management, but I see these in a minor role in our classroom dynamics. Students are paid $10 (funny money) daily for having homework in and being on time. There may be fines during the course of the day for gum or other tardies, but these are virtually nonexistant.

During the last periods on Friday, we have store, which consists of school supplies and snacks. Students need to have turned in homework for the week and have no referrals (from anyone) in order to shop. I also have a marble jar, into which I place marbles if I notice outstanding on task behavior. I also take marbles out if the class, as a whole, is distracted. When the marble jar is full, the class celebrates with a pizza or ice cream party, generally once a quarter. The marble jar helps my aide in maintaining classroom on task behavior if I need to leave the room; subs also find it useful.

Larrivee (1986) findings determined that punitive interventions are rarely used in effective teaching strategies. Since I have taken over my present classroom, administrators and teachers alike have commended me on the marked drop in disciplinary problems with my students. When conflicts occur, I collaborate with the individual student, or sometimes the entire class, in determining other ways that the particular incident might have been handled. This is time-consuming and sometimes emotionally exhausting, but I feel that in most cases a very rewarding way of modifying student behavior.

Forness et al. (1997) determined that direct instruction is an effective strategy. This is certainly a major part of my instructional style. Incorporated in this is application of students' new knowledge in the form of group discussion and projects or extension of lesson in the form of individual practice or project. I also utilize peer tutoring and partner learning in enhancing instructional effectiveness as well as for classroom management.

planning, implementing and evaluating action research projects involving

students with disabilities?
Everyone who has in interest in the outcomes should be involved.

Data Based Instruction by Jeanette (Spring 2000)	Research **Step 1. Formulate the Problem (by identifying issues of greatest professional concern)**
Description of Learning Characteristics and Instructional Needs of Learners in the Classroom I feel especially fortunate to have a caseload of generally on task students who work very diligently on assignments. Their performance and verbal IQs range from 65 to 105, approximately. I approach these scores with caution, since four of my students (two this year) were labeled MR by the previous school psych; they were very hard workers who were in at least one academic/social/kinesthetic area in the average range. • One student was suffering the results of TBI (Traumatic Brain Injury); the current school psych "relabeled" him SLD. The student is performing so well that he will be moved to the RSP program. • Another student with SLD, though the previous psych insisted on MR (the parent would not agree), also is severely ADHD is performing successfully at her level thanks to appropriate meds and a positive classroom environment. • A 6th grader, generally very positive and polite, is designated SLD with ADHD. He is on meds for ADHD and anger management. He was sexually abused in the past year by an adult acquaintance. He likes to think of excuses to leave the room during math time, so my aide and I break up assignments and give him extra positive feedback in order to help him focus. • One of my three girls is in the SDC program due to emotional needs. She had been on meds in the past for anxiety disorder. She completes all assignments with little direction. • One student generally displays characteristics of ADHD, but he is so verbally creative (I look forward to seeing him on Comedy Central) and does complete assignments. • One student with ADHD continually ran off in 6th & 7th grade and threw objects in the room, has matured considerably in 8th. His mother was on drugs when pregnant with him; he is on various meds. He becomes easily frustrated, though he excels in math. • One 8th grade boy with SLD is reading at grade level but sabotages my and the RSP teacher's efforts to move him to the RSP program by deliberately failing regular ed. class. • My biggest challenge is a 6th grader who is highly distractible. He enjoys talking about trucks because his father is a tow truck driver. He enjoys using computers. He shuts down when he feels that there has been some kind of injustice in his life. He completes	In this section, Jeanette described the situation that caused her

few assignments due to his distractibility and emotional turmoil, even when he is in a one to one instructional setting.

- One Hispanic boy with SLD is a constant delight; he works extremely hard at learning to read, doing math, and completes all work. Besides this, he is kind to others.

These are some of my students. Some have strengths in visual learning; others, kinesthetic or auditory. All benefit from multimodal instruction.

My students' instructional characteristics manifest themselves as needs in ever varying ways. I need to clarify certain aspects of instruction and assignments, making sure I check in for understanding with the group as well as individually. I make sure I address as many "roadblocks" that they might set up for themselves and offer appropriate strategies that they individually may utilize in order to progress and present a finished piece if we are working on a particular project. I modify requirements as needed. For instance, my most challenging student finds fine motor activities such as handwriting/printing difficult, so I make the computer or Alpha Pro available for his word processing. I may require more writing from a student who is more capable than other classmates. I may send a student who has difficulty sitting for any length of time on a quick errand or give him a task in the room that will allow more movement. I will give notice to individual students raising hands that I will call on them next when I know that they become easily frustrated when waiting; I utilize this so that their spark of enthusiasm is not diminished. I utilize graphic organizers to present information and to explain assignments; I give the students graphic organizers to help them plan their own writing. I draw pictures on the board if they help clarify a concept. I vary my tone of voice and expression in order to keep their interest. My aide and I give them individual direction as needed.

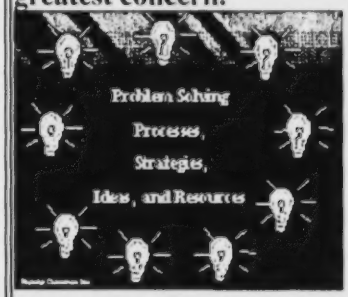
Description of the Learner

"Joe", a 6th grader, is my most challenging student. Joe qualifies for special ed.services primarily because of SLD; difficulties were noted by the school psychologist in the areas of reasoning, auditory memory, and visual motor processing. He has been receiving special ed. and speech services since kindergarten. Joe has difficulty with oral motor skills and speech rate. He is also receiving occupational therapy in order to improve fine motor skills. He was on meds last quarter for ADD; staff members and I noted significant improvement in work quality & completion, and speech rate.

Parents no longer have insurance, so now no meds. I did refer them to the community clinic, but they did not pursue this. He was also receiving counseling at school prior tocompletion of a Community Mental Health referral. CMH has approved Joe's application for counseling, but parents are not pursuing this service. Mom thinks that he is A-OK and knows how to read, even though I have assessed him with

to question some of her instructional practices. She describes 'a compelling reason' to engage in action research.

Notice how Jeanette implemented Guiding Principle #2 as she defined her issue of greatest concern.



She used multiple creative problem identification/solution generating processes.

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various tools which all indicate a reading level at an end 1st, beginning 2nd grade level. Mom is defensive, Dad yells at Joe. They live separately and have never been married. Mom was a drug user during Joe's fetal development. Joe lives with Mom.

Joe completes very little classwork and turns in less than half his homework. Joe does not get along well with peers. He mumbles inappropriate vulgarisms under his breath which naturally antagonizes them. He has no friends. I put a great deal of my time (which then takes away from other students) in maintaining a positive relationship with him. I have considered discussing with the team about moving him into a living skills class due to his lack of progress and level of frustration in my class, even when he is given one on one assistance. *When I recommended that Joe take advantage of Community Mental Health Services, which have been approved, his mother commented, "And I'm not supposed to have any life? You can take him to the appointments."

Data Based Instruction by Jeanette (Spring 2000)

Academic Behavior

One of Joe's IEP goals is to improve his written language skills. Joe is currently performing at mid-first grade level in writing skills. He generally struggles to write a sentence. He reacts to writing assignments by playing with items on his desk, "losing" his pencil, or doodling on his paper. There has been limited success utilizing Alpha Pro for word processing due to his frustration with spelling and mechanics, though I do not emphasize these elements on his assignments. My aide and I have offered to accept dictated work, but he does not want the obvious special assistance focused only on him.

Link to IEP

His current IEP written language goal is: Joe will write a 4 sentence paragraph on the same subject utilizing correct capitalization on 3 out of 5 occasions.

Link to State Standards

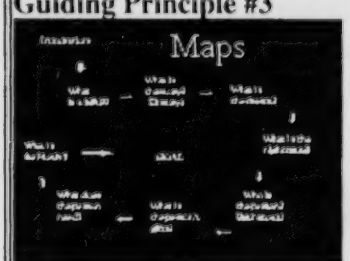
Since Joe's writing skills are at the mid-1st grade level, my goal is to bring him up to second grade level. The above IEP goal relates to California language arts standards for the 2nd grade in writing, as follows: Organization and Focus: 1.1 - group together related ideas and maintain a consistent focus Capitalization: 1.5 - capitalize all proper nouns, words at the beginning of sentences and in greetings, months and days of the weeks, and titles and initials of people.

Collaborative Action Research

Step 2. Collect Data (the "heart" of the 5 step process)

In this section of the DBI report, Jeanette described the focus of her project with Joe, in terms of his academic progress and the relevant standards.

In addition, Jeanette described how Joe's progress would be monitored. Notice that Jeanette was very clear in how she implemented **Guiding Principle #3**



Use multiple data sources,

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Monitoring System Since Joe's progress is going to be gauged by writing progress, Lovitt's Free Expression seems to be a good fit for measurement. I assign the class a journal topic every day. I give the class between 10 – 15 minutes to finish writing, requesting that they set their goal to write half a page on the topic. I will graph the number of sentences Joe uses that do address the topic for each journal entry. I will refer to Joe's previous two weeks journal entries to establish a baseline for his journal writing.	**alternative assessment systems,** **and methods that elicit the voices of** **those most typically disenfranchised.**

Data Based Instruction by Jeanette
(Spring 2000)

Collaborative Action Research
Step 3. Analyze Results (the "soul" of the research process)

ABC Analysis

In relation to Joe's academic behavior in written language skills, Joe rarely completes any written assignment on his own. The antecedents to this are negative encounters with peers that distract him from task at hand, difficulty with handwriting and spelling skills. Consequences to this is poor grades, lowered self-esteem , Joe not feeling a positive participant in the class. Some antecedents that are already in effect to promote his written language skills are making available Alpha Pro available for word processing or dictation to teacher or paraprofessional.

The antecedents of negative encounters with peers could be addressed through pairing Joe with a student that has abilities complementary to Joe's so that both would benefit from the peer tutoring. "Sue is well-liked by all students in class, even Joe. "Sue" is a sweet, patient, hard-working, student who completes every assignment but lacks Joe's imagination. Her spelling and other writing mechanics are at about mid 3rd grade level, but she is very repetitive in her writing. Joe's ideas go in many directions. Sue usually doesn't share her writing with the class; Joe might share but he is talking off the top of his head. The entire class would be paired for a set period for the daily journal writing activity in order to stimulate more ideas on topics and make the goal of writing half a page less daunting. In this way, Joe is not singled out for this activity and is developing positive social interaction. The whole class has access to Alpha Pro, which I download and print out for a record of journal activity.

Students were given approximately 15 minutes to complete daily journal assignment. The first day when planned antecedent was put into effect, I explained to the class that they will be working in assigned pairs in order to assist each other in completing one-half page of writing on the assigned topic, which changed daily. I gave the class choice of using Alpha Pro or the usual journal. I outlined expected behaviors:

In this section, Jeanette described the classroom environment and the antecedents and consequences that might be operating as an explanation of his performance as well as those that might be adjusted so as to assist Joe in improving his academic work.

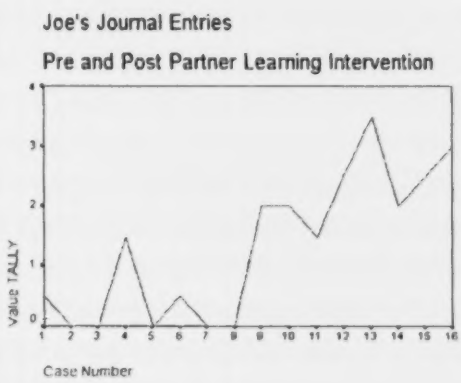
1. Listen to your partner's ideas without criticism.
2. You are allowed to use any of your partner's ideas.
3. Help each other in writing at least three sentences on the topic.
4. Spelling and punctuation are not graded. I paired Joe with Sue, as planned, over which Joe only groaned a little. (^_^)

Data Based Instruction by Jeanette (Spring 2000)

Collaborative Action Research

Step 4. Report Results (the 'life' of the research process)

JOE'S TARGET BEHAVIOR BEFORE AND AFTER MODIFIED ANTECEDENT



Graphically displayed, the data shows that Joe's productivity increased dramatically.

The results of the partner learning intervention were that Joe was now producing more written work in a peer supported activity rather than one in which the teacher offered all the assistance. This is a more effective method for Joe, particularly at this middle school level. His negative comments were also nonexistent during this activity. He shared his journal writing on 5 out the eight days. Joe did come back on track in a more mellow frame of mind. He now had a "girlfriend" who helped him babysit at church. His mother had a new boyfriend that he liked. I'm sure that these variables had a positive effect on the results as well as the pairing antecedent. Another variable would be the journal topic itself. He most likely found some more interesting to write on than others. Still, the progress is marked in that on no post-intervention days did he refuse to write, which is what the 0 scores essentially mean on the before intervention chart.

Summary

Joe's average numbers of sentences written increased significantly, hitting a peak of 3 and a half sentences with no nonperformance days. He was more focused on the daily topic without adult interference. As a result, his grade improved as well as his self-concept. He was also developing a positive relationship with another student.

In this section of her report, Jeanette described in detail what happened with Joe.

She used descriptive language to allow future teachers to better understand how to use a similar procedure.

She added other information such as Joe's social and emotional well being.

Notice how Jeanette implemented **Guiding Principle #4**

Communicate

☺Before,

☺During and

☺After

Communicate often, using multiple methods!

Data Based Instruction by Jeanette (Spring 2000)

Collaborative Action Research

Step 5. Plan Action(s) (by using the findings to improve schools and classrooms)

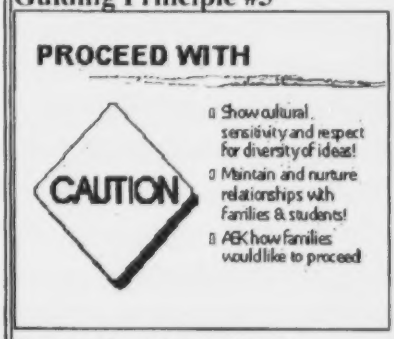
Recommendations and Reflections

Pairings of students should be changed when appropriate in order to provide Joe other positive interactions with peers in a structured environment. This pairing has also been used with Joe in other subject areas with success.

This activity helped me become more open to possibilities of changing entrenched behaviors. I am learning to dwell less on the problem and more on how to change its cause

In this section, Jeanette suggested how the results of her project might help in future instruction with Joe.

And in this section (as well as in the ABC analysis), Jeanette shows how she elegantly implemented **Guiding Principle #5**


PROCEED WITH
CAUTION
Show cultural sensitivity and respect for diversity of ideas!
Maintain and nurture relationships with families & students!
ASK how families would like to proceed

Proceed with caution!

References

Sagor, Richard. (1992). How to conduct collaborative action research. Alexandria, VA: Association for Supervision and Curriculum Development.

*This analysis of Data-Based Instruction Project and Collaborative Action Research was completed by Dr. Ann Nevin, Arizona State University West. Jeanette's Data-Based Instruction Project was completed under the supervision of Professor Ann Nevin in partial fulfillment of the requirements for inaugural implementation of the M.ED in Special Education action research course for Spring 2000, EDEX639: Using Data Based Instruction to Improve the Learning Outcomes of Students who are Difficult to Teach. At the time of this project, Dr. Nevin was a professor at ASUW and collaborated with Professor Jacqueline Thousand at CSU San Marcos to implement this course. COE Dean M. Stephen Lilly, Continuing Education Staff Member Janet Jubran, and Technical Consultant Garrett were influential in the successful implementation of this course.

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Collaborative Action Research

CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects*

Teacher Researcher	Grade Level	Type of Disability	Behavior(s) of Concern
	Preschool		
Dana Escamilla	Integrated Preschool	Speech/Language Impairment	Social Interaction During Circle Time
Stephanie Moore	Preschool Special Class	Pierre Robin's Syndrome	Intelligibility of Spontaneous Speech
Shannon Urnezis	Resource Kindergarten	Visual and Auditory Processing Disability	Letter - Sound Recognition [Visual-Auditory Memory Training]
	Elementary		
Cheryl Veldhuisen	1st-5th Grade Special Day Class	9 year old boy with Autism and ADHD	Oral Language Expression
Emily Buscema	4th-6th Grade Resource Room	Student with LD/ADHD	Social Competence: Anger Management
Julie Reed	Special Day Class 4th grade	Student with Mental Retardation, Speech Delay, and Physical Disabilities	Language Arts (Written and Oral Expression)
Diane Wedig	6th Grade	Student with Learning Disability (Visual and Auditory Processing)	Simplifying and Calculating with Fractions
Diego Ochoa	4th-6th Grade	English Language Learners with Attention Deficit/Hyperactivity Disorder (ADHD)	Increase Oral Expression in 3 Settings
	Middle School/ Junior High		
Lis Winther	Private School	Specific Learning Disabilities / Serious Emotional Disturbance	Promptness & Competencies in Simplifying and Calculating Fractions
Karen Levin	7th-8th Grade Special Day Class	Students with Learning Disabilities	Math
Linda Tyler	RSP classroom	7th Grade Boy with Learning and Emotional Challenges	Expressive Writing (Length and Legibility)
	High School		
Michelle Carlson Christine Kisselburgh Kelly Indermuehle	Pre-Algebra	Learning Disability (Math)	Improve Math Computation with Fractions: Sharlene Improve Math Computation with Fractions: Bob Improve Math Computation with Fractions: Devon
Sean McNamara	Economics	Learning Disabilities, Attention Deficit	Improve Work Habits through Video and Self-Recording

*These Collaborative Action Research/Data Based Instruction Projects project were submitted in partial fulfillment of the requirements for EDEX639, under the supervision of Toni Hood, Special Education Assistant Professor at CSUSM, and Ann Nevin, Special Education Professor at ASU West, during Spring 2002. Protect the intellectual property rights of the author by using appropriate citation techniques when referring or excerpting aspects of their research.

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CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Daina Escamilla*

Description of Teacher I am one of five preschool teachers in an elementary school setting. While I am in my 4th year of teaching, it is my first year in the district, as well as my first year as a preschool teacher. I received my BS degree, and I am certified to teach students with Mild/Moderate Disabilities from the University of WI-Eau Claire and am now in my 2nd semester of the Level II credential program here at CSUSM. I also plan to go on to obtain my MA.

Ranges of ages/grade levels of the children I typically teach My preschoolers range in age from 3-5 years. There are varying disablilites such as Down Syndrome and Speech/Language Impairment. Included in the make up of the classroom are "typical peers". These are "normally developing" preschool-age children who are there to act as positive role-models in behavior and speech.

Description of the Setting Ethnicity includes majority Caucasian with Hispanic students as well. The socio-economic status of my chilren is rather high for the most part. The school I teach in is in a prominent rural setting (smaller city)with no poverty. However, because it is not the home school for all my children, not all children fall into this economic status.

Curriculum Daily curriculum is primarily language-based. We have a 3-hour morning session as well as a 3-hour afternoon session. A typical day may look somthing like this: arrival, facilitated play, circle time (calendar, music, name recognition, weather, etc.), fine motor activities, academics, art, snack and outside free play, rest/read alouds, centers and dismissal. All of the children receive speech services, except the typical peers, and many also receive other DIS services such as Occupational Therapy and Adapted Physical Education. Speech is typically either small-group pull-out, or in-class collaboration and whole group instruction.

Collaborators Collaboration in our department is a big key to our success. We mostly agree to the same thematic units as one another, and share all of our resources with each other. We are in it together! I also spend a great deal of time collaborating with my paraprofessionals. Currently I have 2 morning assistants who provide one-on-one instruction and two afternoon assistants. I keep myself open to thoughts and suggestions from parents, as well, and often utilize their knowledge and expertise.

Philosophy

In teaching my preschoolers this year, I have come to really learn that there are many little things that go into making the whole day a success!

First, a structured environment is key. While sometimes it may seem monotonous to the adults in the room, it is important for the children to have a safe, predictable day at school. This is accomplished through our structured daily routine that has been essentially the same since the first day of school. However, on the flip side, while it is necessary to have a stuctured schedule, it is most important to be flexible! We as special education teachers know this all too well sometimes. Not only have I had to

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make some adjustments to that initial schedule to come up with my final plan, but therapy schedules, absences of students and adults, fire drills, etc. have a big impact on the day. We have to be prepared for anything and everything to happen at any time!

Also, a good behavior management plan needs to be in order. Kids need to know from day one what is expected of them, and what will and will not be tolerated by the adults of the room. And it is up to the teacher to make sure all the adults in the room follow the same guidelines. For a good behavior management system, it is important to emphasize a positive approach. I try to give positive reinforcement as much as possible, not negative. As we all know, though, this isn't always the case.

When developing weekly lesson plans, I keep in mind the need for age-appropriate and cognitively appropriate activities for all of my students. The ideal is to have activities and tasks that will yield a high success rate for all students. It may be that one child learns best through verbal/auditory instruction, while another learns best through hands-on or kinesthetic instruction. In my classroom, I like to use computers when possible and small group instruction. To me, an ideal ratio is 2:1 for most children and if needed, 1:1 for others. We also work on certain skills daily, in one form or another, and these include fine motor, gross motor, social and academics.

Other effective teaching practices include a supportive environment. I feel that this stretches beyond the students. For a classroom to function properly, the adults in the room- paras, therapists, teacher- must all have a common understanding and be "on the same page". Teamwork is, hopefully, happiness for everybody!

Special education is such a fun place to be. In my preschool department, we really learn to laugh with each other because if we don't, we'll end up crying! I know when I enter into my DBI project, I will not be alone. I know anyone and everyone in my department will be willing to lend an ear and their knowledge. After all, isn't that what collaboration is? I'm getting excited to get started!

Description of the Atypical Learners In my first year as a preschool teacher, I have a caseload of 16 students, at present, with a couple of students with diverse disabilities. The most predominant category of disability is Speech/Language Impaired, with a couple of students falling under the Mental Retardation category, as they are students with Down Syndrome.

Our program is highly geared toward a language-based learning environment. Even in the category of Speech/Language Impaired, students have very diverse characteristics. We have students that are very easily understood, with a chance of exiting the service altogether, to almost completely non-verbal requiring the use of several signs to communicate wants and needs.

For my two girls with Down Syndrome, I also see very diverse characteristics. While both can exhibit the "stubborn" side of a child with Down Syndrome, one is highly verbal with a wonderfully intelligible vocabulary, while the other girl is non-verbal, except for some signing, and thus sometimes is perceived to be unknowing. However, after months with this girl, we've come to the conclusion that she is indeed very intelligent. She shows signs of manipulation, trust and distrust and also several academic strengths.

Learning Needs The characteristics of all of my students show the need for individual instructional needs. As stated before, the most predominant disability category in my room is Speech/Language Impaired. Out of my 16 students, 14 of them fall under this category. And while they all do have the need for communication interaction and modeling, each also requires various considerations when dealing with them instructionally, or on an everyday basis. While they are not students with multiple disabiliites, I have students with behavior problems and undiagnosed PDD. The behavior problems in

my afternoon class may very well be within the normal range of a typical 4-5 year- old child. However, when you're trying to deliver a new lesson, you'd swear they're the worst around. And they're not! Due to all of these diverse characteristics, we are required to teach on several levels. Some need a fast-paced workday. Others need a slow, repetitous delivery model. Some students grasp new concepts at shockingly fast rates, while for others it may take 1-2 weeks to fully understand the concept. In my morning session, the girls with Down Syndrome also require the full-time attention of one of my assistants. This is because of their "stubbornness", inattentiveness and quick movements. It can be rather difficult to "keep up" with them sometimes! As for my afternoon session, there is one boy who requires almost a one-on-one aide. It all depends on if he's having a "good day" or a "bad day".

Learner for the CAR/DBI Project: "Conrad" Conrad is the child I'm going to work with for my data-based instruction system. Conrad is a boy with Speech/Language Impairment. During our circle time, we experience the highest level of communication of student-student and staff-student. The problem I want to eliminate is Conrad's inappropriate circle-time behavior. Everyday, the student comes to circle with some coaxing, but then is very disruptive. He will scoot his chair back from the group, tip over chairs, and try to run around the room to play instead of work. As mentioned, this is very disruptive and often "eggs" my other children on to perform the same way. He responds inconsistently to positive reinforcement, and not at all to negative reinforcement. It is very often in his own time that he rejoins circle time. And even then, it may be for the remaining time or may be for 3 more minutes before he's off again. I would like to see if he's bored with it, or frustrated, or confused.

Social Interaction Competence On Conrad's current IEP, he does not have any behavior goals. However, I want to eliminate specific disruptive behaviors. There are unwritten social competence expectations for preschool-age children.

Social competence behaviors for this child to exhibit during circle time include attentiveness, responsive and interactive, and to stay in his seat.

Link to California State Standards The California preschool guidelines is an excellent resource. I feel that desired result for student and family #1 is the most appropriate for Conrad. Desired result #1 states: Children are personally and socially competent. This is very important for Conrad since he will be moving onto a regular kindergarten setting in the fall. He is very intelligent, but needs to focus on his social/personal behaviors in order to fully succeed in the classroom.

Short Term Objectives/Goals

The goal is to increase the duration of the socially acceptable responses of sitting and focusing during circle time to 90-100% of the 30 minute period (that would be 27-30 minutes.)

Informal Observations/Current Level of Performance Conrad is showing the inappropriate circle-time behaviors more often. At the beginning of the year, I had the same occurence of off-task during circle time as I do now. It temporarily tapered off in the late fall months, but has started again and had been occurring for the past month on a daily basis. Out of 30-40 minutes of circle time every day, this child is on-task a total of 15-20 mintues.

I also know that a characteristic of students with speech/language impairmnets is the inability to express their wants, needs and frustrations. However, I have taken this into account in Conrad's case and Conrad does not have this specific language gap. He is able to fully express himself orally and does so! I think the pattern of his behavior through the year proves he is able to follow the rules of circle time, but seems to choose not to. He also know the differences between right and wrong and what we perceive as

acceptable behaviors. Conrad is very intelligent.

Conrad does show many socially acceptable behaviors. In addition to being able to do what is expected, he is a very polite child. Always saying please, thank you, good job, etc. And yes, the curriculum for our preschool includes explicit teaching of socially acceptable behaviors versus unacceptable ones. However, he does not need this training! He flat out states he wants to play! And if he does leave circle time, he runs to the computer or other toys in the room.

Moreover, I also realize some inappropriate circle time behavior is normal behavior for a child of this age/stage of child development. However, of all my afternoon students who are 4-5 years old, Conrad is the only one in the afternoon session who shows the inappropriate circle time behaviors on a daily basis. His peers (both those with disabilities and those without) sit and stay focused!

System to Monitor Progress

For my DBI, I plan on using Interval Recording. This is where a student is observed at specific intervals of time to see if he is displaying the desired behaviors. In my case, I plan on assessing the child every 5 minutes of circle time, and since my circle time is 30 minutes in duration, I will have 7 data points.

My checklist will list the times across the top to monitor "Conrad" (i.e., 1:00, 1:05, and so on until 1:30). Along the left side of the sheet, the 3 targeted and desired behaviors will be listed. These are: 1) is Conrad attentive?, 2) is Conrad responsive?, and 3) is Conrad in his seat? Key marks will be a plus (+) if behavior is noted and a dash (-) if not.

At the end of each day, I will calculate the percentage of intervals that Conrad earned a + (number of pluses divided by 7 multiplied by 100). I will chart these percentages on a graph to provide a quick visual image for ease in interpreting impact of the intervention. At the end of each 4-day week, I will calculate the 4-day average and place a dotted line to indicate it on the graph.

I will do 2 weeks of data collection for my baseline data, and after intervention, continue to collect data for 6 additional weeks.

ABC Analysis The Behaviors in effect for Conrad include not always being responsive, attentive and in his seat during circle time. The Antecedents for the behaviors are that he first gets to school, off the bus, approximately 30 minutes prior, and they have social/facilitated play from arrival until called to circle time. The Consequences for Conrad's behavior include verbal praise and a treat/sticker if socially acceptable behaviors are present throughout circle time. If the behaviors are not present, Conrad is given verbal redirection, and possible "quiet time" (time-outs) or loss of activity. He also loses the priviledge of earning a sticker/treat. Error correction procedures already in effect are the fact of no treat/sticker and loss of activity or quiet time.

I cannot alter the antecedent of the time that Conrad arrives at school. He is there for the start of the session on a daily basis. The antecedent of first having social/facilitated play can be altered by me. As previously stated, I begin circle time approximately 30 minutes after arrival. It may be that Conrad needs it immediately, or later in the day after we've done our other activities.

The consequences that I can change are really any of the listed. However, I'm not sure what else I could do in place of the above consequences. The consequences, of course, need to be immediate, and need to mean something to Conrad. I do a daily communication home to all parents, and this way I am able to tell his father what sort of day Conrad had right away. Whether or not there is the follow-through at

home is questionable. However, the father often does respond that he talks to him so I have no reason to believe he is not talking with Conrad. On one occasion, I told Conrad I was going to call his father, but this only opened his ears to the fact of being picked up, possibly, so it did not bother him! Recently I have learned that ifConrad receives ahappy face, he is allowed 30 minutes of computer time at home. If not, no computer time is granted.

My error correction procedures are that I give verbal warnings to tell Conrad what will happen if he is not a full participant. I have been forward and firm from the beginning of the school year on what is expected of each child. However, when I look at the whole situation, I guess something maybe should changed. I'd like to have more ideas on what to say or do to make it really sink in that he needs to behave in order to not have to lose privileges.

A note about the behaviors of concern and monitoring system At first, I had a problem properly wording what I wanted to get across regarding Conrad's behaviors. I put them in a more negative context instead of putting them in a positive light. I was also confused on adapting it to the California standards, as there are not many for preschool-age children. With Ann's and Toni's help, I was able to narrow it down to socially acceptable behaviors. I still have to look at the California Standards for Preschools webpage as I need to fine-tune my "standard" and objective.

Data Based Decisions and Interventions The data-based decisions I made included offering a one-minute "break" from circle time when I saw he was having a difficult time. My other intervention was to deliver to Conrad constant praise. This was not introduced as a timed strategy for Conrad. I just made sure whoever was sitting behind him gave constant praise for paying attention, participating and staying in his seat. I was prepared to change the antecedents for Conrad but wanted to try these interventions first because of the structured schedule we'd been using since early in the year. While I wanted to help Conrad, I also wanted to keep the other children comfortable.

Consequences have stayed the same for Conrad, but I need to look at how myself and my assistants are posing verbal warnings to him. By nature, these seem to be more negatively stated rather than positively. "Watching" our statements simply means to make sure they are in a positive manner. It's very easy by nature to say, "If you don't..., then you don't get...". I realized this is very true for me and others I'm sure. It's much easier to emphasize and point out the negative when the key is to put all comments in a positive light. I think we do a pretty good job of redirecting his behavior positively. We use comments such as "I like when you sit in your seat.", etc. to let him know that is what we desire of him.

Conrad is having success with the interventions. While I am doing interval recordings, his demonstrations of appropriate 'circle time behavior' was as low as the 70%'s in baseline data, and now he is more often reaching 100% with the interventions made for him.

Since actually having to do a DBI project, I feel I have a much better understanding of the procedures and terminology involved. At first I was nervous when I encountered all the big words and terms, but now I feel better about the whole situation. However, I realize I still have much to learn- I am certainly no expert after one project. I also realize that while this project was very involved, teachers do DBI everyday! I am constantly looking at each of my children and wondering how I can make their experiences better, or reducing off-task behaviors, or increasing attention to task. This DBI project forced me to look at each step carefully and really plan out what it was I was going to do in order to accomplish what I wanted to.

I am proud to say that I feel my project has been a success because I have seen an increase in Conrad's desired academic behaviors. I am still noticing, however, that each day is a new day and what worked

the day before may be out the window the next!

I appreciate the opportunity to take such a great class that offered me the change to look deeper within myself and evaluate my own teaching strategies.

Summary Analysis and Discussion of Results1) Are your instructional interventions creating the desired changes in the learner? Happy to report, yes, my instructional interventions are creating the desired changes in Conrad. After collecting the baseline data, I was unsure of what exactly my interventions would be, but when decided on, and implemented, I'm seeing that I made some good choices. Again, when first implementing the intervention techniques, it was frustrating because I was unsure it was going to work. However, I had to remind myself that it's the norm to see the opposite effect of what you're going for before you see the positive changes start to take place. With this in mind, I kept up my interventions and stayed strong and have seen great results!

2) What decisons am I making? Currently, I am not having to make many decisions. In the beginning, my major decisons included planning out for the best possible interventions for Conrad. This wasn't the easiest, but I tried to keep an open mind, reminding myself, once again, that it could be changed and what may work for him for 2 weeks may not the rest of the time. Luckily, the interventions I've decided upon, have been effective as hoped and I have not had to make any further decisions about my CAR project.

3) How am I reporting results? I have been collecting my data from day one! I started by developing a spreadsheet form that included dates, times, desired behaviors and specific reporting/tracking method. Once this was done, I instructed my classroom assistants on the project and on how to collect the data while I would be teaching circle time. I have been collecting and averaging the numbers out daily, and also weekly. Once I have the weekly number, I plot it on a line graph to visually see the changes in the desired behaviors of Conrad. I started with 2 weeks of baseline data and have followed that with 6 weeks of data collection with the interventions implemented. My final report will be my line graph and summary to show my efforts, as well as Conrad's!

I implemented many elements from the Sagor and Lovitt texts in carrying out my Collaborative Action Research project. I brought to mind the monitoring method I would employ, as well as tracking and reporting options.

I've taken into consideration the need for the importance and effectiveness of my project, too. I made sure it included the learning objective, measure of performance, procedure and I was always open to redesinging, if necessary. Lastly, the ABC's were kept in mind throughout the project.

Summary and Recommendations At the completion of my project, I am pleased to report that my CAR/DBI project was a success! What started out as an unsure project, evolved into a system that has worked the first time around! I was quite lucky in the fact that I did not have to do major redesigning of my DBI. The goals I set for my student were accomplished through my first two interventions implemented. I am also pleased to say that Conrad met his overall goal of behaving socially appropriate 90-100% of the entire circle time. In the last few weeks, results have consistently been in the 90-100% range. Having a successful first attempt really makes you want to tackle the next issue right away!

I would recommend to Conrad's teacher next year, at the transition meeting, that the plan that I had in place was a successful one and one that he is used to. It is necessary for follow-through, and if possible, to implement the same strategies when he is in regular education kindergarten in the fall. My advice would be to watch him because he tends to follow after other children, but I'm hoping in a regular

education setting, there will be fewer behavioral distractions. Also, to give Conrad a lot of attention. Not only does it work well for him, but he does need it. He is always looking for adult attention and approval. In all, I would state that these are my recommendations and advice, but that the new teacher should look at how Conrad fits into her classroom and go from there. I'm not familiar with regular education and what works for me may not be feasible for the new teacher. Also, I do not want to push my ideas and recommendations on anyone else.

I feel I have come a long way with the CAR and DBI processes. At the start of the semester I was unsure of the complex concepts and terminology, but after doing a few of the focus questions for the lecture topics, I realized that we as teachers do this everyday! Although it may not be as extensive to collect baseline and several weeks of data, we do informal observations and make changes on a daily basis. I feel I have done well with my project. I planned out carefully what I wanted to accomplish and set to figure out how my goals could be accomplished for Conrad. I know I could do this again with the skills I have acquired and learned as part of the readings and lectures assigned.

As always, networking and collaboration would need to be present. This is an important piece of the DBI puzzle, and it's funny because up until reading about Networking in the lecture material for the graduate course, I hadn't really realized I was doing it. The Networking lecture made me realize how I discussed the project with his father, other teachers and my paraprofessionals. Overall, I feel I have gained a lot of knowledge and will surely take it with me and utilize it!

The entire DBI/CAR process for me has been highly insightful. It started out by learning all the important pieces necessary and the variations that some of the pieces hold. For example, monitoring. I also learned that while I thought I was learning a whole new system, I've actually often done DBI systems in the past. I really enjoyed the process of the project and feel great knowing that I'm walking away from this course with a pretty good tool for everyday teaching.

The DBI process started out by really looking at myself as a person and special educator. This included my teaching career, the setting and make up of my classroom, and the curriculum I use on a daily basis. I also had to step back to think about my collaboration team. Would I be in my project alone, or would I have enough people close to me that could help me if needed? As part of me, I shared my philosophy education. I realized while writing this that philosophies can change, especially with different grade levels and populations, which for some reason in the past is something that I'd always thought of as staying the
same.

Next, I had to take a real hard look at the students I work with in my classroom everyday. With the majority lumped under the category of Speech/Language Impairment, each one is so individual and different to the other. With these differences comes the need for different methods of teaching to their various learning styles. In looking at each of my 16 students as individuals, I then chose my special student to work with for my data based instruction system. I chose Conrad not only because he was displaying some socially unacceptable behaviors, but I wanted those remediated because he was a student that I knew all along
should be moving onto a full inclusion kindergarten in the next school year. I wanted him to be able to use his intelligence instead of being disciplined for some unsociable behaviors. After looking at the state standards for California preschoolers, I decided that desired result #1 was best. This result reads, "Children are personally and socially competent."

Once all this information was in place, I had to decide what exactly it was I wanted to help change, and think about what my goal would be. When first implementing this sort of project, you need to know where your student is starting. This prompted me to collect two weeks worth of baseline data by using

the Interval Recording method of monitoring. At the end of this two weeks and observation period, I decided on the best methods of implementation, and continued to collect data with these in place. Luckily, I was not required to do any redesigning of my DBI project. The implementations I put into place started to
take immediate effect and continued to throughout the preceding 6 weeks. I excited to see the desired personal and social competencies that Conrad was working toward start to make a difference in his circle time behavior. Conrad had met his goal and continues to everyday!

In all, the DBI/CAR process is very beneficial to educators. While some may think it's tedious work, I urge them to look at the future so as to determine those intervention(s) that actually make a difference for the child's future. Without this intervention, it is highly unlikely that Conrad's unsocialable behavors would have self-corrected, or that he would have matured out of them. The changes occurred because of the structure of the classroom, careful data collection and analysis, and a conscious effort to change the attention of adults towards Conrad so as to increase the social competence that he already had to levels more similar to his normally developing peers.

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Return to CAR/DBI Spring 2002

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CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Stephanie Moore*

Description of Teacher Right out of high school I became a RSP assistant where I knew I was destined to teach special education. After working in that position for 4+ years and completing my BA in Liberal Studies at CSUSM, I decided to go on an adventure and see some of the world with Peace Corps. I spent two years teaching basic skills to children 6-18 years. old in Guyana, South America. Once I returned to the US it took me awhile to get back to school for my teaching credentials. When I heard of the internship program through CSUSM and San Diego City Schools I was ready to go for it. That lasted for 4 weeks, I ended up in a position that was not meant for me. I made a tough decision to get out and try the more traditional route to a credential. I have now completed the Mild/Moderate and Moderate/Severe Level I Credentials, this is my last semester of the Level II program at CSUSM. The only requirement I have left to complete the multiple subject credential at CSUSM is student teaching. My current position is brand new in the district and I am in the process of defining it and my own personal style. What I have discovered is my love of the early childhood age group is true. This is where I belong, this is a position meant for me.

Ranges of ages/grade levels of the children I typically teach I teach in a preschool speech and language early intervention program. Our 55 students are 3.0-5.6 years old. We (the preschool team) screen/assess students on a continual basis, as they are eligible for our program at three years old. Most of the students have no/very mild cognitive delays and are qualified under speech and language. We do have a few students with self regulatory issues, seizure disorders and hypertonia.

Setting The district I work in is in a very wealthy urban area. All of my students are fluent in English. The majority (~90%) of my students are white, about 8% Asian and 2% African American.

Curriculum Being a preschool early intervention program, there isn't a formal district curriculum. I work with a team to create a developmentally appropriate logical sequence of instruction. We have several early childhood curriculum books and many years of experience (trial & error) with in the team.

Collaborators The preschool team, of which I am a part, is made up of an administrator of all preschool programs, a psychologist/program specialist (dual role of one person), 2 education specialists, 1.2 speech-language pathologists, an occupational therapist and a preschool teacher. This team meets weekly and works through assessments, schedules, policy decisions, procedure implementations and many other topics. From that team, I work with a Speech Pathologist and the preschool teacher on a daily basis.

My Philosophy of Instructional Management In my early intervention preschool class I believe that several elements need to be in place before students even enter the classroom. One of the first things I believe in is a positive attitude within the team of teachers. There are at least three adults in the room for each session and we all need to be on the same page in order to create a warm, safe environment. The

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second element that needs to be in place is a well thought out sequence of instruction. What are we teaching? Why are we teaching that? What area of need is the instruction addressing? How are we presenting the information? Is the concept/activity developmentally appropriate? Which member of the team is doing the instruction? Once the students arrive I believe we must present as good language models and teach acceptable social communication skills through cues and feedback. This team of teachers has developed a natural rhythm of providing positive reinforcement to our students. Our main tool for modifying behavior is to ignore negative and praise positive behaviors. I find this to be an extremely effective strategy for behavior management. My overall philosophy on teaching is to make learning fun for all parties involved.

My Typical Atypical Students In my early intervention speech and language program, there are 55+ preschool aged (3.0-5.6 years old) students who cover a wide developmental range and each has speech & language goals addressing needs in articulation, pragmatics, expressive and/or receptive language. A handful or so of these students are diagnosed with global delays, but are enrolled in our program as the least restrictive environment. Each of our students has one or more of the following needs: Articulation errors that make their spontaneous speech difficult to understand, Inability to read body language & facial expressions, Mean length of utterances (MLU's) that are developmentally inappropriate, Difficulties following developmentally appropriate 1, 2, & 3 step directions.

My Students' Instructional Needs Students with speech and language delays need good language models, repetition, wait-time, opportunities to practice, role-play and a variety of developmentally appropriate activities that require following directions and exploring language. We use a multi-sensory approach to language development by providing opportunities for the students express themselves through singing, dancing, drawing, painting, and talking. When presenting new information we also consider the variety of learning styles.

Learner for my DBI Project "Mia" is a 3.10 year old little girl who was diagnosed with Pierre Robin's sequence at birth, but no longer demonstrates characteristics of the sequence. At one year old she had a cleft palate repaired. She began our program in spring of 2001 and will continue attending 120 minutes a day 3x per week for the remainder of this school year and the 2002-2003 school year as well. She has made incredible pre academic gains in the last 4 months. She has learned names of all the basic colors; she can identify characters, as well as, some events of a story and is beginning to identify letters of the alphabet.

IEP goals Her speech & language goals are focused on articulation and expressive language areas.

Description of Behavior to be Monitored I will be attempting to change "Mia's" speech intelligibility in cooperation with the speech therapist. One of her specific goals is to increase production of the final consonants at the word level.

Relevant State Standard There are general state standards for preschool curriculum. In addition, I tend to look at the kindergarten standards and several kindergarten readiness checklists to determine what skills to teach.

System to Monitor Mia's Progress I plan to record data using a rating scale based on how well I understand "Mia" with a 1 representing very well, 2 so-so and 3 required cues (visual, pointing,

repetition etc.). I am also planning to voice record "Mia" for a 10 minute period one time per week. These voice recording will be reviewed by a speech therapist that does not work with Mia to determine if there is a change in intelligibility over the monitoring period.

ABC Analysis Mia has a great desire to communicate and share information, which would qualify as the antecedents to the behavior I've been monitoring, her speech intelligibility. Another antecedent to her speaking would be a teacher coming down to her level, remember that she is four years old, to initiate a conversation. Most mornings Mia brings in a book to share with me, I've used this time to the audio recording for monitoring her speech intelligibility. Her current behavior is speech that is intelligible about 50% of the time with out a visual cue, it is much easier to decode what she says with a visual cue like a book. The consequences of Mia's semi intelligible speech are, the listener may ask her to repeat what she's said, ask her to "Show me", or mom may translate. There is also the possibility that the listener may give an acknowledging "uh-huh" and move on to the next task without really understanding the intended expression. Current error correction procedures include repeating what I think she's said checking for clarification and also offering a clear articulation of all speech sounds model. After modeling the correct articulation I don't usually ask Mia to repeat what I said and drill the sound productions because I want to avoid frustration. I only offer the model for the benefit of hearing how it should sound and making sure I've received the intended message.

Antecedents In this situation I don't feel like there are many antecedents I could change to improve her intelligibility. I do offer one-to-one time with Mia as often as I possibly can without neglecting the other students. The Speech Pathologist and I are working closely to insure that the environment is full of good models of articulation, as well as, offering oral motor activities to strengthen her articulators.

Consequences I can continue to employ the "show me" strategy if I don't understand what is being communicated. My classroom team tries not to ask students to repeat what they've said several times because that increases the frustration level and is not productive in solving the problem.

Error Correction Procedures Current error correction procedures include repeating what I think she's said checking for clarification and also offering a clear articulation of all speech sounds model. After modeling the correct articulation I don't usually ask Mia to repeat what I said and drill the sound productions because I want to avoid frustration and I'm not her Speech Pathologist. I only offer the model for the benefit of hearing how it should sound and making sure I've received the intended message. I feel that these error correction procedures are effective and do not need changing at present.

Other Alterations I didn't have changes regarding the description of Mia's learning needs. On the other hand, I've had some challenges in collecting data using my original monitoring system. I've modified the monitoring system to be completely audio recording, transcribing and having an uninvolved party listen to the tapes to determine if there is an increase intelligibility.

Making Data Based Decisions I haven't made any changes with Mia's placement, goals, or curriculum, but I have noticed a change in the way I interact with the Speech Pathologist in regards to how she is working with each individual student. I'm making more of an effort to reinforce the therapist's strategies and techniques for helping each of our students accomplish their Speech goals, within our classroom. By working more closely with the Speech Pathologist our students are receiving consistent reinforcement of strategies throughout their entire session instead of only during the 15-20 minutes they are at the Speech center. I've also started using the monitoring system of audio recording all the students so parents can review and hear progress at different times throughout the year.

I have had some difficulty collecting samples because of the limited time Mia is in my class...3x/wk for

120 min each and her attendance in not 100%. I have managed to get at least one sample per week for 5 weeks.

As I reviewed and transcribed Mia's audio recordings, I listened not only to her intelligibility but also to my questioning strategies and patterns. In early recordings, I would only ask simple labeling questions like "What is this?". Once I heard this and realized that I wasn't encouraging higher level thinking with describing or inferring questions, I made a conscious effort to decrease the number of labeling questions and increase the higher level questions. This change in consciousness is a benefit for all students, not just Mia. Without the data collection in the audio recordings, I would not have become aware of how limiting I was in my lines of questioning.

Summary and Reflections After each taping I transcribed each recording to determine how much of the conversation was intelligible to me, a familiar listener. I then had other teachers, that were not accustomed to the student's speech patterns, listen to the tapes to see how well they understood the student. Their understanding was significantly less than mine due to their unfamiliarity with the student's speech patterns. While listening to the first few recordings I found that the questions I was presenting to the student were very limiting and generally asked only for a label, very few required higher level thinking skills like inference and prediction. I feel that the most significant impact of this project was not on the student but on myself, I have made a conscious effort to examine my prompting questions for all students.

I had a great time exploring this strategy for guiding direct instruction. Though I am thankful for fewer trips to the CSUSM campus, one of the most difficult aspects of this course was the lack of personal contact with the instructors and peers. I was impressed with how accessible the instructors made themselves by email and phone conversations this helped alleviate some of the discomfort with the lack of face-to-face interactions. I also took pleasure in watching the final product (DBI homepage) develop and the media by which progress was reported.

The process of collecting data for this project led to the evaluation of my teaching strategies which I found to be limiting and restrictive. This discovery led to a conscious evaluation of the prompting questions I use with all students. I have made changes to incorporate a variety of higher level thinking skills like inference and prediction in my lines of questioning. I think that this was just the beginning of a process to continually evaluate instructional practices.

An analysis of the collaborative action research process I followed shows how well I have accomplished the competencies for Level II Certification as a Special Educator. Prior to even starting the formulation of my data based instruction project idea I completed the module developed by National Institute of Health to better understand how to protect the rights and welfare of all human participants involved in research (Standard 15- read and apply current and emerging research on best practices as well as maintain currency on educational policies and laws). The process I used to complete the actual Data Based Instruction project is one of exploration. When I started this project I was unsure of the path I would take and the stops along the way. I started with several ideas for potential students in my early intervention speech and language program to work with, each of which have very different needs. I narrowed my focus to work with a 4 year old female with a moderate to severe articulation problem due to a cleft palate that was repaired at one year old. After a brainstorming session with the professors I was able to devise a plan of data collection that included audio recording and a rating scale of the intelligibility of my student's speech in various interactions. Once I started the data collection, I found that the rating scale was extremely difficult to use in an
efficient manner and very subjective. This is when I decided to do away with that method of information gathering and increase the number of audio recordings to two times per week. I obtained the recordings in the first fifteen minutes of class time when we have a semi-structured play time while

the student and I looked through a book integrating pre-reading skills into our speech and language program (Standard 19- acquire the knowledge and skills to teach, adapt, modify, and integrate curriculum appropriate to the educational needs). In six weeks there was only one week where I was able to get two recordings in a single week due to student absences and administrative needs. After each taping I transcribed each recording to determine how much of the conversation was intelligible. I also asked people who were not accustomed with the student's speech patterns listen to the tapes to see how well they understood the student (Standard 20- opportunities for each candidate to develop skills in communication, collaboration and consultation with teachers and other school personnel). Their understanding of her speech was significantly less than mine due to their unfamiliarity with the student's speech patterns.

An unexpected outcome occurred while listening to the first few recordings. I found that the questions I was presenting to the student were very limiting and generally asked only for a label, very few required higher level thinking skills like inference and prediction. I feel that the most significant impact of this project was not on the student but on myself, I have made a conscious effort to examine my prompting questions for all students (Standard 13-modify or change specific instructional strategies based on data collection and analysis).

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CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Shannon Urnezis*

Description of Teacher I consider myself to be a very open teacher. I spend very little time with formal planning because I find that my students will help me create a lesson that meets their needs. I am very structured in the expectations that I have for my students when they enter my classroom but as long as they follow basic rules of respect and cooperation, I am open to exploring anything they want. A typical lesson for us to read a few chapters in whatever novel we may be reading and relate it personal experiences. Sometimes we write about these experiences, or just share with the group. So many of my students have difficulty expressing themselves that I feel they have been successful when they share something personal. I hope that my students see me as someone they can trust. I know that the majority of my students are the ones who are considered "behavior problems", however, when they are with me, they work at their potential and are engaged and are really a joy to be with. I received my bachelors degree at SDSU in liberal studies and minored in Mexican American Studies. I got my credential at CSUSM through the concurrent program. I finished my resource specialist certificate at UCSD and am nearly done with my masters. Yeah!!

Ranges of ages/grade levels of the children I typically teach As a resource specialist, I work with students from preschool, 4 years old, to fifth grade. I have a pretty even distribution of students. Academically they range from pre-kinder basic skills such as holding a pencil and coloring on the paper to about the third grade reading level. Most of my students have language acquisition issues and we work a lot on verbalizing ideas in English.

Brief description of the ethnic and linguistic diversity of learners, and their socio-economic status My school is 97% Hispanic. The other three percent is made up of African American, White, and Asian students. 95% of the population are second language learners. My school has 100% free lunch. Overall the students are considered high risk for dropping out. My district does not have a high school so once the students leave middle school they have to take a bus to a high school in Chula Vista. Unfortunately many of the students decide that they would rather not take the bus ride and they leave school at the 9th grade. My school is in an urban area, which is growing rapidly, however, many of our students cross the border from Mexico each morning. Many of them are living in poverty, some are homeless, all of them deserve the best education available.

The majority of my students are Hispanic. They are native Spanish speakers who have experienced second language acquisition difficulties. These students are typically living at or below the poverty level. Many of them are living with several families in one or two bedroom motels. I also have a large population of foster children who come from Polensky with scars that no one can see. Many of them have been sexually, physically and mentally abused. They come to me with little or no self esteem, very little support from home and with the fear of moving again. Many of my children have such traumatic home lives that eating becomes more important than homework. How do these things manifest themselves academically? Well, many of the students never complete homework, either because there is no one at home to help or because they are busy taking care of chores or siblings. This is not to say that

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these students have not been trained to think of homework as unnecessary. Many of them would not do the homework if they did have someone at home to help. There is a disregard for school even as early as elementary school. The low self esteems generated from abuse, neglect or just school failure prevents students from taking chances in the classroom or even socially. Language barriers and communicative disorders prevent students from transferring academic information from one language to another. Specific learning disabilities are compounded by a "bilingual" program that has not prepared students to transition to English only classrooms, which is mandatory at the fifth grade. Do I sound frustrated, wow!! I guess I never really thought about how difficult it can be for these kids. I better hurry up and finish my master's so I can get my doctorate and become the new Superintendent. There is so much to be done.

Curriculum As I mentioned earlier, my "curriculum" is very flexible. I write my goals based on the standards and meet them using a variety of methods. I have become one of Scholastics best customers and buy group sets of whichever books are on sale. My students love reading chapter books, it makes them feel successful. Most of my students find the core literature at their ability level to be far below their interest level. We have better luck with books like Horrible Harry or Captain Underpants. I create study guides and fun writing assignments based on whichever book we are currently involved in. It usually depends on how the students are feeling. Sometimes, they just can't stomach another summary or reading reflection and I understand that. I encourage them to come up with their own ideas for showing me that they understood what was read or that they have mastered whatever lesson was being taught. I try to be very flexible but I also keep detailed portfolios for each child.

My Collaborators I have a fantastic instructional aide. She is my main collaborator. I am constantly bouncing ideas off of her. We work very well together. We are learning from each other every day. I have the technical background and she is a wonderfully warm and caring person who is constantly reminding me that we are teaching children not creating SAT-9 scores. Unfortunately, my school has had a history of "islandism". I have not made the efforts I should to help make the school more collaborative. I find that every time I enter the teacher's lounge I am bombarded with criticisms and complaints about the students I love. For a while I tried to be respectful and diligently write down each of their concerns but I came to realize that many of these teachers were simply looking for a way to keep the students with special needs in my room and out of theirs. Now, I pretty much stay in my room and mind my own business. I still consult with teachers who are looking for instructional strategies and modifications but I decided that for self preservation I could not be the person everyone came to when they needed to complain about little Johnny's behavior on the playground. I know--I am trying to work on it. It is one of my professional goals.

Philosophy My philosophy for instructional management begins with my philosophy for behavior management. In my school I have found that many of the students with special needs are the same students with behavioral problems. Although I have not researched this hypothesis I am fairly confident that the reason for this correlation is that the students with special needs are not be given the same expectations as the students without learning disabilities. [That would be unfairly discriminating against them on the basis of their disability!] I am very direct with my students in letting them know that I have very high expectations for every person that enters my classroom. Every person is expected to do their personal best, not just with academic behavior but with personal behavior (their "conduct") as well. Setting up these expectations early in the year creates an environment where we are all free to explore our best learning practices.

I use direct instruction, cooperative learning groups, student led learning groups, literature circles, writing circles, repeated drills, or basically anything I can get my hands on that I think will help the students master their goals. I will even try things that I do not think will work just to be sure.

The one teaching strategy that I always implement is scaffolding. Most of my students are second language learners and they have a limited English base to build upon. I have found it vitally important to make sure the students see the connections between what is happening on paper and how it relates to their "real world." Learning is only useful if students recognize that it is meant to be taken out of the classroom.

My Typical Atypical Students My typical student is a native Spanish speaker who has been in an English program for less than two years. There is no one at home who speaks English, and the only time the students speak English is in the classroom. The majority of my students have auditory processing deficits. They tend to be very kinesthetic and enjoy working cooperatively. They tend to be competitive which can be beneficial but it can also cause strife in the classroom. They are very eager to please but easily frustrated with very low self confidence.

My Students' Learning and Instructional Needs The primary need for these students is an increase in self confidence. To achieve this we work very hard on verbal and written expression. Many of them have gotten into the habit of simply giving up when something is challenging. We have had to learn how to break a large activity into many small steps. Because of the auditory processing deficits many of my students have great difficulty with writing tasks. They have difficulty differentiating sounds and therefore cannot spell phonetically. Spanish and English share many sounds that are not represented by the same characters which makes it very frustrating for the students.

My students are very uncomfortable being singled out and prefer to work in small groups where they have peer support. Many of the students with auditory processing deficits also have auditory memory deficits which makes it crucial that they have all the information they need in simple written format. It has become very important to teach the students how to pick out key words from verbal directions and write them down.

Much of the general education environment seems to be lecture, which is torturous for these students. We do a lot of kinesthetic activities to help students remember facts, we use mnemonic devices and have battle with teachers over allowing the use of multiplication tables and calculators.

Learner for My DBI Project The student I have chosen for my data based instruction system is a kindergarten boy named Joshua. Joshua was referred for special education evaluation last year, when he was attending kindergarten at another school. The team decided that although Joshua did qualify for special education due to visual and auditory processing deficits, his learning problems may be stemming from immaturity due to an August birthday. After two months at my school, Joshua was referred to me for observation. Although Joshua was attending Kindergarten of the second time he was experiencing great difficulty. After a brief period of consultation, I felt it was in Joshua best interest to reexamine the psycho educational report and reconvene the IEP team. The team determined that Joshua did in fact qualify for special education services and would benefit from an individualized education plan.

Academic Behavior to be Improved I would like to improve Joshua's ability to focus on and retain information. Specifically, Joshua's ability to recall the names or sounds of the letters in the alphabet. Joshua's current IEP has goals and objectives relating specifically to the ability to name letters and sounds through improvement of visual and auditory memory. Joshua tends to give up easily, or takes en extended amount of time to recall information. For example, on the Brigance Joshua was asked the names of his parents...fifteen minutes later Joshua blurted out the answer. This must make it difficult for him to change tasks and focus on what the teacher is talking about during the time it takes him to recall an answer.

Relevant State Standard The goal of increasing recall of letter names and sounds is directly related to the kindergarten standards. Basically it is phonemic awareness. Joshua is at the very earliest level of phonemic awareness. He knows how to write his name, however he does not know that each letter makes a sound or that each letter has its own name. We are working at the ground level trying to build a solid foundation for Joshua to grow on. The standards are:

Reading 1.6 recognize and name all upper- and lower- case letters
Reading 1.14 match all consonant sounds to appropriate letter
Reading 1.14a match all short-vowel sounds to appropriate letters.

System to Monitor Progress Frequency of letters named correctly will be tallied each day.

Interim Analysis of Progress/Observations By keeping detailed records of the student's progress the instructor can easily gauge the level of understanding, the rate of acquisition and whether there are peaks and valleys of student understanding. For example, with my student I am finding that on Mondays it is almost like starting from scratch. Joshua has great difficulty identifying any of the letters that he identified Tue, Wed, and Thurs of the previous week. However, on Tuesday he picks up steam and is ready to add to his learning. By the end of the week Joshua may have learned two new letters. Then on Monday we go through the whole thing again. I have found that Joshua's mastery level of learning for each letter takes about two weeks. It is very helpful and very fascinating!! This information is extremely helpful in planning for Joshua's instructional objectives. I know that if I try to give him too much information at one time he becomes overwhelmed and is unable to focus on anything. By keeping a daily notebook on Joshua's progress I am able to determine if the activities we are doing are actually impacting his learning. Last week we did a letter sorting activity with the three letters that Joshua knows. We practiced capital and lowercase as well as sound. I found that on Monday Joshua was able to recall the letter names and sounds for all three letters. This let me know that the kinesthetic action as well as the verbalization of the names and sounds worked well for him. This is a strategy we will repeat. On the other side, we did an activity in which Joshua used an alphabet chart to help him put together an alphabet puzzle. After adding each piece of the puzzle we would review each letter name and sound. By the end of the puzzle Joshua had added three letter to his repertoire. I thought Yahoo!! However, the next day Joshua could not remember the letter names of the new letters. The repetition worked in the short term but he did not retain the information. Because I check for retention each day I was able to determine that this particular activity was not effective for increasing Joshua's retention of letter names and sounds.

The ABC and Es of My DBI Project The main antecedent for Joshua's failure to retain information seems to be frustration. The behavior consequence for this frustration is that he seems to "shut down." He is unable to recall better names that he has correctly identified a few minutes earlier. Then, he becomes even more frustrated and stops trying. The method I have been using as an error correction is redirecting. I encourage Joshua to begin an activity that he enjoys, such as coloring or a very simple math page. After a few minutes he seems to regain his composure and confidence and is ready to try the previous task again.

Antecedents to Change A few weeks ago I needed to attend a conference which kept me out of the classroom for three days. When I returned I started my routine just as I normally would. When it was Joshua's time for services I brought him onto the room and began the session. Things went horribly from the beginning. Joshua was in a bad mood, he was not even trying to label the letter names or sounds. When he performed writing tasks his writing was very sloppy. When I asked him what the problem was he said, "Nothing." I began thinking about how long it had been since Joshua had been with me and how that might affect not only his feelings toward me but his ability to recall the information I was asking for. Fortunately I was able to alleviate the situation pretty quickly simply by apologizing for not being

able to work with him on the previous days and by doing a quick review of the letters before asking him to perform any tasks. I was lucky that he is such a flexibly little guy, because he was right back on task and trying his best within a few minutes.

Consequences to Change The consequences of Joshua's ability to retain information are pretty cut and dry. Either he retains the information or he doesn't. I am able to manipulate how he recalls the information through a variety of teaching strategies but overall, either the teaching is effective and he recalls the letter names and sounds or we move on to another strategy until he is able.

My Error Correction Procedures If Joshua incorrectly identifies a letter symbol or sound I immediately correct him. We talk about why he might have been confused, are the sounds similar, do the letters look the same et cetera. When Joshua becomes frustrated and needs to be corrected I simply redirect his attention to a simple activity until he has a chance to relax and regain his confidence. This is is a very simple method and it seems to work very effectively with Joshua.

Data-Based Decisions According to my daily data, I decide if Joshua is ready to add a new letter. It has been very simple to look at the data on my recording sheet and determine if he has mastery of the letters we are currently working with. I decided to introduce a new letter when he was able to recall the letter name, sound and symbol three days in a row. Now that we are getting further along into the alphabet I decided I would introduce a new letter when Joshua was able to recall ninety percent of the information being presented. There are some letters which naturally present learning obstacles and for these letters I do not place as much weight. For example, Joshua might confuse lowercase b or d, or he might say that the letter G make the j sound. These are normally occurring errors that do not inhibit his ability to move on in the alphabet. The data has been very helpful in tracking when these errors occur as well. I have been able to identify that Joshua makes most of his errors on Mondays, which makes sense. So, on Mondays we do a very brief review of the letter symbols and sounds before we begin our session. This has been very beneficial.

Reflections on My Teaching Through this project, I have learned a great deal about myself as a teacher. By charting Joshua's growth I am able to literally see what strategies and techniques are effective. Additionally, by having this daily information I am able to follow the patterns of Joshua's learning. I recognized Mondays were more difficult for him so I was able to provide a little more nurturing and a little less academic pressure. I think that Joshua and I have both benefited greatly from this project. I have been able to learn more about his learning styles and growth potential. I have learned to be more aware of the surroundings and how they effect my students. Additionally, I have become more aware of the individual needs of my students. By focusing on Joshua I have realized that each student on my caseload is an individual who has very specific needs. My next challenge is to figure out how I can implement something like this with all of my students. Maybe try to come up with an individualized tracking sheet based on goals and objectives. The information would be fantastic for IEP meetings and for establishing new goals and objectives.

Summary Project results indicate that academic interventions to increase Joshua's ability to retain information have been successful. The baseline data shows that Joshua had been working on letter names, sounds and symbols for over a year. His previous kindergarten teacher shared that Joshua was introduced to the letters through reading activities, group activities and reinforced with small group or one to one instruction. Joshua began receiving services in the resource program in January of his second year in kindergarten.

His current kindergarten teacher uses ZooPhonics and Breakthrough To Literacy as her primary phonics based programs. According to educational assessment results, Joshua was able to identify 2/26 letter names, 0/26 letter sounds and could correctly produce 2/26 letter symbols.

Upon beginning the DBI tracking sheet, Joshua was able to identify 3/26 letter names, sounds and symbols. After four weeks of direct instruction using AlphaTales, magnetic letters, and lots of repetition Joshua is able to identify 10/26 letter names, sounds, and symbols consistently. His progress began rather slowly, however, Joshua quickly gained his confidence. He learned a few self-help strategies such as looking at the alphabet chart on the wall for support, repeating the alphabet out loud, and using the kinesthetic motions of ZooPhonics to prompt his memory and now he is adding two letters per week. Before long Joshua will be on his way to reading!

Recommendations/Advice I have found the data based instruction project to be extremely effective in measuring progress of teacher and student progress. Joshua and I have greatly benefited from this project. Joshua received the teaching strategies and techniques that he needed in order to be successful and I was able to gauge my effectiveness as a teacher in direct relation to his retention of the information. I will definitely be continuing this strategy with Joshua and implementing data based instruction with many of my students. When working with a diverse group of learners it is important to be able to measure individual progress. The charting system that I used with Joshua was very easy to implement and took only a few minutes each day. It would be very simple to teach a parent, parent volunteer, or para-educator how to chart Joshua's daily progress. By recognizing how easy it can be to truly individualize instruction I am encouraged to believe that general education teachers might be persuaded to try something like this in their own classrooms. I know that I will be presenting my project and sharing the techniques with the teachers at my school.

I think that I was very effective in the implementation of effective teaching practices. Through this project I was able to really reflect on my daily teaching and become more insightful about how my teaching effects my students. By charting daily progress I was able to directly relate individual activities to the retention of the desired learning objective. If a strategy was not beneficial to the learner it was apparent almost immediately and I could replace that strategy with another that might work better. This project forced me to stretch myself as a teacher and as a learner. It really opened my eyes to the wealth of information we have access to, simply by asking the right questions. If general education and special education teachers would truly collaborate to provide students with the effective teaching practices that they need success is almost guaranteed. As I said earlier, I will definitely be sharing this information with my peers and will hopefully be able to help others achieve the same success that Joshua and I experienced.

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Sagor, Richard. (1992). *How to Conduct Collaborative Action Research*. Alexandria, VA: Association for Supervision and Curriculum Development. ISBN 0-87120-201-8

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CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Cheryl Veldhuisen*

Description of Teacher I received my BA in Education in 1974 from Drake University in Des Moines, Iowa. However, I did not enter the educational field until 1994 when I began working as a teaching assistant in a school devoted to the education of children with autism located in northern New Jersey. I worked at the school for 4 years. This experience inspired me get my Certification as a Teacher of Students with Handicaps in New Jersey. Soon after receiving my certification, my family moved to San Marcos. I began my teaching career here as a teaching assistant in a pre-school classroom for students with severe handicaps, where most are students with autism. This is my second year teaching in the School District. Last year I taught a preschool class for students with SH; and this year I am team-teaching in a 1st-5th grade class for students with SH. I have been attending CSUSM taking classes to clear my California credentials. I now hold the following California certifications: Professional Clear Multiple Subject, CLAD Certification and Preliminary Level 1 Specialist Certification for Mild/Moderate & Moderate/Severe Disabilities.

I find teaching children with severe disabilities both challenging and rewarding. I love to watch the children grow, and celebrate even the smallest success. Sometimes everyone in the building knows when one of my students has had a success because I have gotten so excited over their accomplishment. My supervisor in San Marcos once told me that one of my gifts in teaching in the special education field is that I teach to the child. I take children from where they are and try to help them to blossom into who they can be.

Ranges of ages/grade levels of the children I typically teach While working in New Jersey, I spent 3 years in pre-school level classrooms with students ranging in age from 3-5 years old. The last year in New Jersey I worked in a classroom with children ranging in age from 6 - 9 years old. Since being in California, I worked 1 1/2 years with pre-school age children, and the children in my classroom this year range from 8 - 11 years old. Although the classroom is labeled a 1st-5th grade class, currently our students' range from 2nd through 4th grade.

Ethnic and linguistic diversity of my learners, and their socio-economic status My school is in an urban setting in a predominantly white, middle-class neighborhood. However, our classroom is a regional class and all our children are bussed in from other areas. Eight of the ten children in our classroom receive free lunch. Two of the children are from households where Spanish is the dominant language. The language abilities of all the children in our classroom are limited.

Curriculum Most of the curriculum used in our classroom is teacher generated. We incorporate Handwriting Without Tears where appropriate to help students with their handwriting, and have just ordered Zoophonics to help the children learn the names and sounds of the letters. We use small group and 1-on-1 instruction for direct teaching, and TEACCH systems for independent work. We incorporate two large group activities each day to reinforce following direction, math and reading concepts, and fine motor practice. We also incorporate cooking and community experience into our curriculum so as to

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emphasize functional life skills. The district speech therapists come twice a week to our classroom for small group work, the Adapted P.E. teacher also comes twice a week for a whole class activity. We have music class and library once a week, and the children go swimming every other week.

My Collaborators I collaborate on a daily basis with the two instructional aides who work in our classroom, and on a weekly/bi-weekly basis, or when a necessity arises, with my co-teacher. Communication is carried on with the parents on an on-going basis either through notes sent in the child's book bags, or with telephone calls. I collaborate weekly with the speech therapists when they come into the classroom to work with the children, and bi-weekly with the Occupational Therapist that works with one of our students.

Philosophy My philosophy for teaching begins with getting to know each student and making a connection with them. Without this connection, it will be very hard, and in some cases, impossible to teach them. Once my connection is made, I then teach to each student's needs, trying to build on their strengths and improve their areas of weakness. Direct teaching (Gersten, Woodward & Darch, 1986) would best describe my approach to teaching new concepts. I believe material should be presented in a systematic way, in small steps to improve a student's chances for success, and in sequential steps so that one skill builds on another already acquired skill. I like to make my lessons active to keep the students involved in their learning. As described in Fred Jones' Tri-Modal Model, a lesson should be a process of saying, seeing and doing. I always try to keep the following phrase in the fore-front of my mind: "Never do for a child something that s/he can do for himself." With special needs children, it can be all to easy to teach learned helplessness, and this is something I want to avoid! I believe in a multi-sensory approach to learning, incorporating as many senses as possible (and appropriate) in a lesson so that information travels
to the brain on as many different pathways as possible. Visual aids are an essential part of my teaching as is the use of *realia* whenever possible. I believe in generalizing information learned in the classroom to the "big world" outside our door. A lesson learned is not worthwhile if it doesn't have the possibility to effect the quality of a student's life. Positive reinforcement is my mode of motivation. I was surprised, but pleased, to see the lecture that this had the single biggest effect in improving students scores! I LOVE to celebrate even the smallest success with my students to help them feel good about themselves, and to have them be more willing to continue on the road to learning. And, finally, I believe it takes a team to teach children with disabilities. Not only does each member of the team bring a different knowledge base, but often educators need to think "outside the box" and be creative to develop an educational program that is effective for a child. The more minds there are working together, in a collaborative manner, with agreed upon, appropriate goals for the student, the better the chances of success in helping that child reach her/his full potential.

My Typical Atypical Learners The learning characteristics of the 10 students in my classroom are of the mixed variety. All of the students have delayed intellectual functioning with 2 or 3 in the moderate to borderline range, but most in the severe range. About half the students have moderate to severe emotional challenges, and two students have mild/moderate orthopedic impairments. Nine of my students qualify for adapted physical education instruction. Language delays are evident in all my students, with three having echolalic speech mixed with jargon, one has echolalic speech without jargon, four have speech limited by their intellectual functioning delays (with one also having severe enunciation problems), and two are basically non-verbal. (All of the students qualify for Speech and Language instruction.) Lack of social contact is also a key issue for four of my students.

My Students' Instructional Needs Structure would be one of the key words to describe our classroom. The furniture is set up in a way that clearly delineates the various work areas of the classroom, and the same basic routine is followed on a daily basis. If there are changes in the schedule, visual prompts and social stories are used to prepare the students for the change. Verbal instructions are kept short and

simple, and are usually accompanied by visual, and, when necessary, physical prompts. Speech and language development as well as social instruction are continually incorporated into all classroom activities. Two S&L therapists come twice a week for concentrated small group work on speech and language development. Work time is divided between one-on-one, small group and large group instruction to meet the different needs of all our students. One-on-one work focuses specifically on the individual's IEP goals; small group work expands on the one-on-one instruction; and large group work focuses on direction following and being able to focus in a larger group, as well as reinforcing key reading and math skills. Work time is alternated with free choice to increase the students' ability to focus during work time, and give them a reinforcement to work for. The students have three times during the day for physical development -- morning recess, after-lunch recess, and afternoon "bike time." During recess times our students are with their typically developing peers so these are also times for social instruction. "Bike time" is on our own and is used to build skills in riding bikes, scooters, ball play, balance beam walking, etc. The children have adapted physical education instruction twice a week as well as swimming bi-weekly. Community trips, cooking and self-help skills are also part of the curriculum to meet the daily life skills our students need.

Learner for My DBI Project Rex is a lovable 9 year old boy with a dinosaur fixation. His primary disability category is autism, but he is also on medication for ADHD. Both disabilities severely impede his ability to learn. His intellectual functioning falls in the moderate to borderline range with his academic goals including learning the names of the lower case letters, building a site-word vocabulary, identifying numbers up to 70, and legibly copying a 4 word sentence. he is a visual and kinesthetic learner who prefers 3-D to 2-D tasks. Rex's inconsistent responses to sensory experiences, ranging from high to low tolerance for sound, touch, movement and oral sensory information, indicates that he has difficulty modulating sensory input. His speech is echolalic mixed with jargon, with few spontaneous utterances during the school day. His most frequent use of language is to request items. Rex's individual work area is secluded to reduce visual and auditory distraction. It is difficult for him to stay on task during large group activities, often darting under the table or off to another part of the room during these work times.

Academic Behavior to be Changed Since the ability to communicate is of paramount importance to a person's quality of life, I chose one of Rex's language goals as the targeted behavior for my DBI project. In December, the speech and language pathologist added a new goal to Rex's current IEP in an effort to expand his purposes for communicating. The goal states, "Rex will participate in social interactions by calling an adult's name to gain attention/request assistance in a structured setting (with verbal prompting) on 7/10 trials, 3/4 days -- as measured by data sheets." This is the goal I will use for my DBI project.

Connecting to the State Standards This goal is tied to Goal Stem #3 of the Reading/Language Arts Curriculum Guide section of the Special Education Alternate Curriculum Guide for Students with Moderate to Severe Disabilities which was developed by the Special Education Administrators of County Offices (SEACO) in California. (This is the guide California teachers of students with moderate to severe handicaps are required to use in developing IEP goals and objectives.)

Monitoring Approach In my DBI project, I will be collecting data on two different objectives. Objective #1: When asked "Who is this?", Rex will correctly identify by name the four adult instructors in the classroom (Cheryl, Lisa, Sheila & Stephanie) with 80% accuracy. The purpose of adding this objective to my project is to be sure that Rex knows the names of the adults whose names he is required to use to gain attention/request assistance from in the IEP goal. I will use the percent method to monitor Rex's progress towards this objective. This objective will be added into his daily one-on-one work so data can be collected on a daily basis. A data collection sheet will be designed to make the collection of data easy and systematic. The data can then be graphed to show Rex's progression over time. Objective

#2 (IEP goal): Rex will participate in social interactions by calling an adult's name to gain attention/request assistance in a structured setting (with verbal prompting) on 7/10 trials on 3/4 days as measured by data sheets. The frequency count method of data collection will be used to monitor Rex's progress towards this goal. The "count" will be the number of times during the day that Rex uses an adult's name (with verbal prompting) to gain attention or request assistance. This will be accomplished by placing a tracking chart on the wall where all adults will be required to record any successful attempts that they observe Rex make in a day. (This system is already used in our classroom, so formation should be accurate.) The daily counts can then be graphed to give a clear visual representation of Rex's progress
towards this goal.

The ABCs and Es of This DBI Project *Antecedents*: First, Rex is fairly new to our classroom. He transferred to our class in
mid-December, we had a one week break for Christmas/New Years' holidays, then we went off-track for the month of February. Therefore, not only has he had little time to learn the names of the instructors, but he may have forgotten them while off-track. Second, Rex's autism impedes his ability to learn social information through observing social interactions. He would most likely not "pick up" someone's name just by hearing other's using the person's name. Third, Rex's autism impedes his ability to use language to initiate social contact.

Consequences: The consequence of the first and second antecedent is that Rex does not know or cannot consistently recall the names of the four instructors in our classroom (2 teachers and 2 aides). The consequence of the third antecedent is that Rex will gain attention by physically pulling someone to what he wants, or use his hand to turn their head to look at what he wants, or go "off task" instead of asking someone for the assistance he needs to complete a task.

Current Error Correction Procedures: (or lack there of...) As instructors, we have not made a concerted effort to teach Rex our names. We have responded to his physical requests without making him verbalize it. We have not been pro-active in recognizing Rex's need for assistance with a task until after he's gone off-task.

What Antecedents Can I Change? First, in collaboration with my fellow instructors, we can use direct instruction (using discrete trial techniques) to teach Rex our names. We will use the questions, "Who is this?" or "What is my name?" in conjunction with pointing to the face of our fellow worker or our own. At first we will immediately follow the question with the person's name, then have Rex repeat it. As he begins to be successful at this level, we will fade giving the full name to giving just the initial sound of the name, as a "clue". We will eventually fade all prompts as his success rate increases. We will ask him these questions throughout the day to give him repeated practice. We will also use this procedure with pictures during his one-on-one work time. Reinforcement will be given for correct answers by giving him a "high five, saying "right", " You're right, that's _____", etc.

Error correction will be made by saying a quiet, quick "no" then giving him the correct name and having him repeat it. Second, we can contrive situations throughout the day in which Rex has to ask another instructor for assistance, or go to show them some finished work. Instruction can be given through scripting. In the beginning, the instructor working with Rex will give him the verbal prompt such as, "Ask _____ for a cup", then physically accompany Rex to the person and tell him to "say, '_____, may I have a cup please?' ". After Rex has repeated this phrase correctly, the instructor being asked will reinforce him by saying, "Good using my name, Rex." and giving him the cup. This type of instruction will continue with the scripting being faded out as Rex is more successful. Emphasis in the scripting must be on using the person's name since that is the focus of the objective. The error correction procedure would be to use a quiet, quick "no" and repeat the script of what Rex is to say. Once Rex has

mastered the names of the classroom instructors, we can use the same technique to teach him the names of the other students in the classroom, service providers, other adults on campus, etc. We can then expand his lesson of addressing people by name into an ever widening circle of people. We can also connect his learning to home by training his mother is our technique and have use the method at home and other places they go in the community.

What Consequences Can I Change? and What are My Error Corrections? One consequence that can be changed is for Rex to be made to verbalize his request any time he physically prompts someone for attention. In having him verbalize his request, he must also include the person' name. Another consequence that can be changed is for the instructors to be pro-active in noticing when Rex needs assistance so he can be taught how to ask for help instead of going off task.

Results What "data-based" decisions did I make? The first objective for Rex in my project was for him to be able to correctly identify the four classroom instructors by name with 80% accuracy. To achieve this goal, I set up a discrete trial
method of direct instruction where Rex was required to correctly give the name of the instructor when presented with each of their photos in random order. By the end of the second week of using this instruction method on a daily basis, Rex was consistently able to identify each of the instructors by with 100% accuracy. Since Rex had been so successful using this method of learning the names of those around him, I decided to expand the instruction to include the names of his classmates. By the end of the second week after adding the names of Rex's classmates, Rex was able to consistently recognize the names of all 9 of his classmates, as well as retain the names of his instructors, with 100% accuracy.

The second objective for Rex in my project was to achieve his IEP goal of using the names of adults to gain attention or request assistance in a structured setting when given a verbal prompt. To achieve this goal, the instructors in the classroom began "setting up" situations during the day where they could model and instruct Rex on using names to address people, and made him use our name (using verbal prompts) any time he came to us to gain attention or request assistance. By the end of the second week of this type of instruction, Rex began independently using not only the names of the classroom instructors, but also the names of some of his classmates. For the first two weeks data was only collected to reflect the number of times Rex used the name of a person to get attention or request assistance with no differentiation between those request that were verbally prompted and which ones were done independently. Once Rex began to consistently use others' names independently, we changed the data recording to reflect whether his usage was done after a verbal prompt or if it was done independently.

Reflections on My Teaching By looking at the data collected for Rex's goals on a continuing basis, I was able to determine that the method I had chosen to instruct Rex was working effectively. His progress consistently improved and he was able to surpass the goals set for him. Continual monitoring of Rex's progress also allowed me to expand my first objective once he'd met the original goal, and to change my data recording method for the second objective in a timely manner.

Setting up and following through on my Data-Based Instruction project helped my student achieve his IEP goal. The IEP goal was set for Rex at our December transition IEP meeting when Rex was moved to our classroom from a different classroom in the district. Last week we had a second IEP meeting to write new goals for Rex based on the tremendous progress he has made since moving to our classroom. We were able to mark on Rex's IEP that in only 5 months, not only had Rex achieved the goal that my DBI project was based on, but had surpassed it. We were also able to expand on my objective for Rex to learn the names of his classmates by writing a reading goal for him to be able to learn to read the names of his classmates. We were also able to write a higher level communication goal for Rex to be able to increase his level of communication with others by independently greeting them and requesting an item he wishes to use that someone else is using.

Recommendations and Advice I would recommend continuing to use direct instruction in teaching Rex, and to use programs set up in the discrete trial format whenever possible. Breaking social situations down into smaller units helps Rex understand what type of behavior is expected of him. I would also recommend using naturally occurring social situations and "contrived" social situations as opportunities to give Rex direct instruction on what he needs to say through the use of modeling and verbal prompting. The results of my DBI project support the effectiveness of these interventions in teaching Rex social verbalization skills.

Rex was able to make very quick progress towards achieving this IEP goal because I chose it as the basis for my DBI project. Setting up the project helped me (1) to analyze the necessary components of the goal, and (2) to focus my attention on the best way to teach Rex each component of the task. By keeping data on a daily basis and continually reviewing the data, I was able to expand Rex's learning in a timely manner. The results of the project clearly show that the instructional methods I chose were effective methods to use in instructing Rex, and therefore should continue to be used in the future. Through the implementation of this project I have been reinforced on the value of data-based instruction, and feel comfortable and confident to continue to use it in my future teaching.

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CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Emily Buscema*

Description of Teacher I received my BA from Seattle Pacific University in November 1999. I earned credentials for K-12 Special Education (all inclusive - in Washington, there is no break down for Mild/Moderate and Severe) and K-8 General Education. When I came to California, I got my Preliminary Mild/Moderate and Multiple Subject credentials. I am now in the process of getting my Level II clear, CLAD, and Masters. As a teacher and person, I am a very patient person. I enjoy making learning fun and interesting. I like to have the students take responsibility for their learning and be as independent as possible. I feel that I am good at multi-tasking and scheduling. I am very flexible, as the schedule can change daily and even by the hour. I feel that being fair is a must as a teacher.

Ranges of ages/grade levels of the children I typically teach This year I teach 4th-6th graders. I have ten students right now, from 9-13 years old. I have a huge range of ability levels. I have students with Down Syndrome, ADHD, emotional difficulties, and MR. I have a student who is not yet reading, and we are working on letter sounds. I also have students reading at the 7th grade level. There is a huge range, so we do a lot of small group instruction.

Description of the Setting I work in an urban setting, with families who enjoy a high socio-economic status. Most of the parents have college educations and many are wealthy. There is a range of ethnic diversity. In my class, I have one African-American, one Chinese student, one Armenian child, one Hispanic/Native American, one South American (caucasian), and the rest are caucasian. It is a nice mix. They are all fluent in English, but two have another language spoken at home (Chinese and Armenian).

Curriculum In my classroom, I use the school curriculum wherever possible. I use ability leveled text. Though I may be using the school curriculum, often the text is a year or more below their current grade level. In reading, I also incorporate Project Read and ZooPhonics for several of my students. I use Steck Vaughn readers for one of my students as well.

Collaborators The people with whom I typically collaborate (such as paraprofessionals, school psychologists, other teachers, parents, advocates, etc.) I am always collaborating with others. I have three part-time brand new aides. They are all wonderful and willing to work hard and try new things. I also collaborate with the school psychologist and counselor to learn and try new techniques on a few "difficult" children. I talk to the general education teachers daily, some more often than others. All are very supportive and positive. It is nice that they are willing to work as a team. The parents are mostly supportive. I actually have several mothers come in once a week to help out with the spelling groups. This is wonderful because it allows for more groupings of kids! I am very lucky to have such a supportive staff!

My Philosophy As a teacher, I am constantly learning, growing, and changing. I have already begun changing because of this class with the learning of new ideas and concepts. My philosophy...such a big realm of ideas. I believe that I am effectively incorporating the four main teaching practices that were

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talked about in Topic 1: classroom management/discipline, positive feedback, instructional appropriateness, and a supportive environment. Of course, there is plenty of room to improve.

For all students, especially those with special needs, it is so vital for them to have a supportive and positive environment. I have a few students who have a tough home life, and coming to school is their sense of security. Students needs rules and boundaries so they can feel protected, but the rules can be implemented in a positive and supportive way. Having a lot of patience, flexibility, and fairness contributes greatly to having a supportive environment. Students need to feel successful. Criticizing and degrading do the opposite, so we as teachers need to be very careful in how we give feedback. In Topic 1, it mentions that we as teachers need to "rarely criticize student responses," but rather "provide positive feedback" and "give sustaining feedback to students who respond incorrectly to questions." If students get positive feedback, they will continue to pose questions and to feel comfortable to try.

Being able to successfully manage a classroom of different grade levels and schedules, as well as having a variety of students with various needs is challenging, but possible. Trusting the teacher and instructional aides is a huge part of successful management. The students need to feel loved, cared for, and feel like they are being treated fairly. Having rules that are well posted and explained to everyone helps to make it a fair classroom. Everyone is expected to abide by the rules. Having routine in the class helps everyone, though schedule changes do occur. Students are taught where they need to go, what they'll need, and how much time they have. Learning to transition to the next group or event is important for smoothness. Students also need to feel like they are being challenged. They need an "appropriate level of difficulty of tasks" which means that the task is in their zone of proximal development (Lovitt, pg. 11).

Another factor of good instructional management is that the teacher is willing to try new things. After reading about Collaborative Action Research, I realized even more strongly the importance of working with other teachers to work as professionals and promote good teaching. Using action research is important, because it promotes "action" or "change" when something is found. Collaborative Action Research is a great way to stay on the cutting edge of teaching and keep students learning in the best way possible. I look forward to beginning to use these research tactics in my own classroom to promote "effective" change.

So basically, my philosophy is that the student comes first. Positive feedback and a supportive environment are the foundation blocks to "effective teaching practices."

My atypical learners In my classroom, it is definitely true that heterogeneity is the rule rather than the exception. My class is made up of students from 4th – 6th grade, aging 9 years to 13 years of age. The students come from families with a wide range of ethnicities, including Chinese, African American, Armenian, South African, Native American, Hispanic, and Caucasian. Each student also has a variety of beliefs, aptitudes, competencies, and desires. Some of my students want to become lawyers, others want to become teachers, and still others want to someday become chefs and artists. It is exciting to see the many differences and unique qualities of each student.

If I had to choose a "typical" atypical learner among such a heterogeneous group, I would say that all of my students are those with learning disabilities. I have three students with Mild Mental Retardation, as well as students with emotional difficulties.

All need much scaffolding and assistance dealing with day to day issues. Many of my students have difficulty getting homework turned in on time and doing it neatly. All of my students need assistance with organization, writing homework assignments into their agendas, making sure they have the

materials needed, and keeping a tidy workspace. Most of my students need specific instruction and training in the area of social skills and working in groups.

Many of my students are similar to the ones mentioned in the reading. The 'prototype' learners described in the lectures by Nevin, Thousand & Hood (EDEX639, 2002)-- Judy, Kitty, Jake, Jose, and Randy -- all describe aspects of many of my students. In the Sagor (1991) text, Sagor writes, "Your goal is to understand what is happening in your school or classroom and to determine what might improve things in that context" (pg. 29). This quote shows me the importance of getting to know each student in an individual way so that I can best serve and teach him or her.

Instructional Needs The learning characteristics that I mentioned above show up as instructional needs in a variety of areas. Needs should be addressed in all academic areas, from math to reading, as well as in the areas of social skills and organization. Some of the ways that these needs are met in my classroom is the use of small groups and one on one instruction, direct instruction, repeated instructions (or looping), social skills groups with the school counselor, and assistance in the mainstream classes with academics and social areas.

It is important that students are motivated to learn and to put forth effort. One way that students are motivated is by having some choices of activities when they are finished with their work. Immediate feedback is always given, and the opportunity to interact with peers (Lovitt, pg. 41). To help with issues in social skills and learning to deal with teasing, the students are taught a variety of statements to use, such as "I'd like to, but I'm busy," "No, thank you," "I like your hair," "When you say that, it makes me feel..." (Lovitt, pg. 233). In my class, I call these Debuggers. To help build self-esteem, since many of my students have very low self-esteem, we compliment one another on specific areas. During handwriting time, I constantly am walking around giving comments on what they are doing well, giving suggestions about corrections, and more praise (Lovitt, pg. 306). This is known as "sandwiching." The students appreciate the specific praise and correction and are doing it to each other now. One student will look over and see what a nice job the other student is doing. Then the student will give specific praise and tell other students in the group to "look at how well Joe wrote his letter G" and everyone will tell him what a great job he is doing and how much he is improving. This is so exciting to see in my classroom!

The learning needs of organization are met by giving students a specific time to write down their homework assignments and make sure their materials are in the correct section of their notebook. Students must have everything written down and organized before leaving for lunch, so this is a motivator. At the beginning of the year, the class set up notebooks together in a specific way, so that everyone was organized the same. The students learned where everything went and practiced a lot. This was helpful for all the students because I can just say "Where does this paper go?" and everyone can answer "In the blue folder..." Every Friday, we spend a few minutes cleaning out desks and making sure everything is organized for Monday. We have a special puppet that the students named and students take turns checking everyone's desk with the marionette puppet. These are only a few of the many instructional needs that the students have. Every student is unique and special. Each students' instructional needs are being met in some way, but of course, there is always room for improvement!

Learner Selected for This CAR/DBI Project I have chosen one of my students, whom we will now call "Tom", for whom I will develop a data-based instruction system. Tom is a highly energetic student who has learning disabilities and ADHD. He is a very fun, sweet, and friendly fifth grader. Tom is in my special day class to get extra assistance in the areas of math, writing, spelling, and reading. He goes to his mainstream class for Social Studies and Science (with modifications and accommodations), PE, Music, Computers, Media Center, lunch, and recess, as well as for any special activities. Tom has difficulty staying focused and is constantly moving some part of his body, such as getting out of his

chair, tapping pencils, or talking. Tom needs constant reminders and prompts to get back on task and to "stop tapping or talking." Tom also struggles in the areas of organization, neatness, getting homework turned in on time and done neatly, social skills, and anger management. Tom gets upset very easily and often over minute issues. If he feels like he can't do something or gets frustrated, he might rip up his paper, put his head down on the desk, crawl on the floor and get under a desk, yell, or hit something. His self-esteem is extremely low and he often feels worthless and sad. Tom is in a tough home situation, where he lives with four other kids in a two-bedroom apartment. He has had many instances of lice where he has to go home, comes to school hungry, and CPS has come to the house and school on multiple occasions. All of the kids have been taken from the home at least once this year, but have returned to the same verbal abuse and neglect. Tom has many pent-up emotions, frustrations, and sadness to deal with. At school, his emotions go up and down so quickly, especially since school is his "safe house." Tom has a lot of challenges to deal with, so he needs a tremendous amount of support from teachers to help him feel needed and feel good about himself.

Academic Behavior

The academic behavior that I wish to improve upon for Tom is the social competency skill of anger management. The lack of control for his anger-behavior affects everyone in the class, because I have to stop what I'm doing to go talk him through his frustration, and often it will take five to ten minutes to get him back on track. While this is happening, my group is left without an instructor and they are losing valuable instruction time.

When angry, Tom cannot work on any academic subject. I have already sat down with Tom and formulated a "Stop, Think, Good Choice, Bad Choice,

What do you want to do?" plan with him, but Tom still makes the same "bad choices" in reaction to his anger and continues to needs verbal support from me. More still needs to be done for Tom.

He does not have a specific goal for anger in his IEP at this point, but will most likely need to have one added at some point. It was not added because he is getting the support in the classroom, but now his lack of anger control has gotten worse and outbursts happen more often.

Relation to California State Standards

The closest appropriate standard that I could find relating to anger management, was in the area of reading at the fifth grade level (Tom's grade level).

If Tom can learn to apply these standards to his personally frustrating situations, then hopefully we can transfer the knowledge to his own experiences.

3.2 Identify the main problem or conflict of the plot and explain how it is resolved.

3.3 Contrast the actions, motives (e.g., loyalty, selfishness, conscientiousness), and appearances of characters in a work of fiction and discuss the importance of the contrasts to the plot or theme.

System to Monitor Progress To keep track of Tom's anger tantrums, I decided to use an ABC analysis, combined with the length of time the tantrum lasts. The ABC analysis is a chart that breaks up the instances into Antecedents to the Behavior, the Behavior described in detail, and Consequences to the Behavior. This is also known as a Before-During-After chart. I chose this way to analyze Tom's tantrums, so that I can get a look at what is happening before it occurs, in hope that I may find a pattern

or be able to curb the situation before a tantrum occurs. Also, writing specific behaviors down is helpful. Lastly, knowing exactly what the consequences were is helpful to see if they are consistent or need to be reassessed for effectiveness. The use of a timer to measure the amount of time the tantrum lasts is also helpful. This will help determine how long the tantrums last as well as how many total minutes a day they occur. After collecting one to two weeks of baseline data daily, I took the data from the ABC charts and graphed the information. I looked for any types of patterns, whether it be days of the week that more tantrums occur, time of the day, length of tantrums, etc. This data is simple, effective, and accurate. It is simple because I just need to set the timer and fill out the ABC chart, though the chart takes a few minutes to fill out. This should be effective because I am recording the data in more than one aspect, including Antecedent, Behavior, and Consequence, as well as length of time, which should give all sides and angles to the behavior. Also, the data shall be accurate because the information will be written down shortly after or during the tantrum, and details are given. Also, the timer helps keep the length of the tantrums accurate.

I monitored the objectives described above by having the standards with me during reading time. I teach these standards directly to my student(s) during reading, in conjunction with the text or novel. To monitor and show progress on these goals, I use a chart that shows the percentage of correct answers each time we touch upon the standard. A quiz will also be given at the end to determine the extent of Tom's knowledge and understanding of the standards.

Note The part I found difficult was trying to group my students as "typical." My students are so diverse, as I imagine it is this way in all classrooms. I have students ranging from a Pre-K academic level to grade 6, which is a very large difference in skills. Also, my students are diagnosed as having 'dual disabilities'--i.e., their characteristics are associated with learning disabilities, mental retardation, and emotional difficulties. So it was difficult to find the "typical" learner.

ABC Analysis What are the ABCs (antecedents, behaviors, consequences) and Es (error correction procedures) already in effect for my learner?

There are already many ABCs and Es in place for my learner, Tom. The antecedents that are already in place, include preferential seating near the front of the room, seating next to a peer that is well behaved and not easily distracted, a picture and word chart taped to his desk to help when he is frustrated (Stop, Think, Good Choice, Bad Choice, What are You Gonna Do?), a warm welcome when he enters the room, hugs, and much verbal praise.

The behaviors that Tom demonstrates, include a positive attitude until he feels a task is too difficult or if another student bothers him. Tom will get mad, rip up his paper, put his head on the desk or crawl underneath a desk or table, etc. He knows that the behavior is inappropriate, but he gets to where he cannot control his responses and goes into a downward spiral. I try and get him back on track before his anger gets out of control, but that does not always work.

The consequences that happen often are that I will quickly go over to Tom's group and get him back in his chair. I am firm and assertive, but caring. I try to focus on the positive, by telling him what he needs to do. I let him know what he is doing is not appropriate and that we need to think of one or two things he can do to help calm him down and get him back on track. Tom usually needs a minute or two by himself to regroup before agreeing to make a "good" choice. Other consequences that occur are a reduced number of points that he can earn in that academic group and sometimes a behavior check on the clipboard. If he gets several behavior checks, he misses part of his recess.

The error correction procedures are part of the consequences and involve immediate feedback. I tell him

what he did correctly, especially when he is able to control his anger before a tantrum begins. Also, I walk him through his frustration and actions and help him make good choices, which I mentioned These are examples of error correction procedures. Another would be modeling the good behavior for him or pointing out a student who is doing the behavior that is wanted.

Antecedents to Change

Some antecedents that I could change in my teaching environment that may help change Tom's behavior might be to adjust some of the student's in Tom's small academic groups. He has major difficulties with one student in particular and this conflict often begins his anger tantrums. It is difficult to figure out how to regroup because the students need the same teaching at the same level, but numerous things have already been tried. So, anytime where I can split them into separate groups, I will do that. Also, if I tell him exactly what I expect from him in respect to his behavior and how much I want him to accomplish on the academic task and tell him in a positive way, the extra prompts may help. I have found that often the tantrums and misbehavior occur during non-academic times and unsupervised places (i.e. on the way in from recess, walking to speech class or to the general education class). Whenever possible, I would like to have an adult walk him and the other students to their destination.

Consequences to Change

I just started having Tom chart his own behavior when he gets upset. This is something Tom is excited about and when he stops himself before he has a tantrum, he will be rewarded with a small treat. So, instead of just having the regular weekly prize at the end of the week (which he often does not get), I feel that Tom needs immediate reinforcement, both verbal and physical. The verbal has not been enough to change his behavior. He is always hungry and does not get a snack from home, so he enjoys food treats.

Changes in Error Correction

My error correction procedures are described above. They include telling Tom what he is doing well, and what behaviors are inappropriate and need to be changed. Often times, I will help him think of one or two good choices and then have him choose one to do. I don't think I should change them because I try to focus on the positive, and I give him immediate feedback.

Note: Challenges for this Project Probably the hardest part was finding relevant state standards for my student. Since I picked a behavior in anger management, it was challenging to find a correlating academic standard. I was glad when I received feedback that I had picked appropriate standards. It was also difficult deciding which student I would focus on. "Tom" is one of my most difficult students, but this is probably the most difficult behavior to try and fix. I'm worried that my DBI may not work because he keeps telling me that he doesn't want to even try to get better. It is so hard to motivate him.

Other Sources for Ideas

Lovitt reminds us on page 52, that "The main idea is to help them identify events that cause or trigger behaviors and anticipate the consequences or results of those behaviors." I feel that each DBI example showed good proof of this. Sagor tells us on page 43 that sound research "usually leads to equally sound recommendations for change that will improve student performance and enhance teachers' professional self-esteem." After reading each DBI example, I gained "sound" ideas regarding monitoring, changing antecedents, behaviors, and error correction procedures

Making Data Based Decisions There were several "data-based" decisions that I made. I used the ABC chart to monitor "Tom's" anger tantrums. I also timed the length of each outburst. I focused on both the antecedents and the consequences.

Name: _____

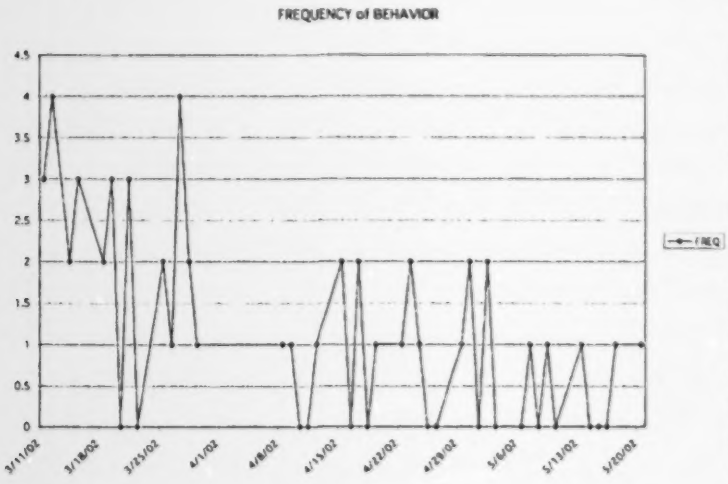
My goal is to control my anger before I explode. I will do this by Stopping, Thinking about Choices, Making a Good Choice, and Doing it. When I do this, I will feel good about myself, others will be proud of me, and I will get a small reward as a bonus! The most important reward is that I'll be able to manage my own actions and be more independent!!

Here's my chart so that I can see how I'm doing:

DATE	SUBJECT	Did I STOP? (Before I get out of control)	THINK about my CHOICES	DECIDE on a GOOD CHOICE	DO IT! TAKE ACTION	How Did I Rate? Scale of 1-5 1=Poor 5= Excellent	COMMENTS
		+ -	+ -	+ -	+ -	1 2 3 4 5	
		+ -	+ -	+ -	+ -	1 2 3 4 5	
		+ -	+ -	+ -	+ -	1 2 3 4 5	
		+ -	+ -	+ -	+ -	1 2 3 4 5	
		+ -	+ -	+ -	+ -	1 2 3 4 5	

I created a simple chart for Tom to fill out each time he gets angry or even if he doesn't get angry in a subject where he has difficulty (Spelling, Writing, and Math). He should definitely get rewarded if he doesn't get angry! I also fill out the same chart and we compare how he did. The chart breaks down the steps involved with making behavior decisions (Did I stop, think of options, make a choice, and do it). There is also a place for Tom to rate himself. Tom fills this out immediately after his anger or small group. If he handles his anger well, before he is out of control, then I reward him with a small food incentive (pretzels, goldfish, or sugar free candy). Another "data-based" decision that I made was to give even more positive feedback. He needs a lot of praise! Each time he fills out his chart, I give him praise, as well as during and after each group. He has responded very well with the independence in filling out his own chart. He is very responsible with it, and brings it to me for my approval each time! The chart is a part of the antecedent as well as the consequence. I let him know that he'll have to fill out his chart, and he normally pulls it together very quickly.

Results As shown in the graph, the self monitoring plus self regulation and prompting procedures have resulted in some important changes in the desired direction.



This graph shows the relative frequencies for each day of the week. In summary, my DBI project has proven successful. My goal was to decrease the frequency and/or the length of time the tantrums were occurring. Please take a look at my graphs. Tom has not completely stopped his tantrums and anger outbursts, but they have decreased in both frequency and length. Tom's frequency back in March was normally occurring an average of three tantrums a day, and they occurred three to five times per week. Now, Tom's frequency of tantrums has decreased to an average of one tantrum, two times per week. Tom's length of tantrums has decreased in general, though there are still the really big outbursts that last a while. Back in March, the length of Tom's tantrums ranged from 3 minutes to 28 minutes in length. The length can actually be an accumulation of multiple tantrums during a day, so keep that in mind as well. Tom has been better able to get control of his anger much faster because of his self charting and positive feedback and incentives. He now has more days of no tantrums occurring, which is fabulous. On

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average, Tom's tantrums will only last 1 to 3 minutes, but on occasion increases to longer.

Recommendations I have a few recommendations for other teachers who are wanting to help students with anger management difficulties. Please recognize that the anger can stem from other sources, such as home. In my case, my student has a tough home life and Tom and I talk about this. Tom seems to let his anger and aggressiveness show at school, rather than at home. I believe that Tom actually feels safer at school, so chooses to let out his inappropriate anger at school.

Do not blame yourself for the anger and outbursts. Remain calm and composed. Give your student a few minutes to cool off on their own once they see that you recognize what is occurring. It usually does not help to show your frustration or to raise your voice (though you may feel like exploding, which I have felt many times this year).

Make sure that you have a list of things to try once your student becomes angry. For my DBI project, I created a self monitoring chart for my student to fill out for each academic group, which both of us fill one out. Please refer to it. The chart actually has motivated Tom to calm down more quickly. I have actually seen him walk over to his chart, look at it, immediately calm down, and then fill it out. Tom used it as a tool to cool down! It was quite impressive to watch.

Here is another word of advice. Make sure that your student, instructional assistants, and anyone who may need to know, are aware of your steps of action once a student gets out of control. In my class, the chart is filled out, a behavior check is given to the student, and a loss of recess is the consequence if there are two or more behavior checks given.

Once my student has calmed down enough to be rational, I take the student outside to talk privately with him or her about the incidence, the actions that occurred, what should have occurred, and what the consequences will be. If something happens that threatens the safety of another teacher or the students, one teacher will take the rest of the students in the classroom, while another teacher calls for help and stays with the student in the class. I also have an envelope that can be taken to the office that lets the secretaries know to have my student work for them for a few minutes so the student can calm down.

Reflections I have learned a tremendous amount about implementing effective teaching practices and principles, as well as how to design an effective instructional management system. This project has taken a great deal of time, thought, and commitment. I do feel like this project was successful because I actually was able to show progress in regards to my student's anger.

Also, I have learned how to implement data-based instruction and action research. This process of completing the online graduate course has taught me how to find ideas, such as using research from the internet and by forming a problem solving team.

My next step is to continue the self charting and incentives with my student. I am actually planning to set up a behavior support plan with my school psychologist and hold an IEP to brainstorm and implement this. Even though Tom has improved both his frequency and length of tantrums, these are still occurring. His anger seems to have become more harmful to himself and to others, to the point of needing to have him or my students leave the room. This is a serious issue and must be dealt with right away. So, I will be getting some much needed support from my colleagues!

I believe that the supports that I have given Tom can be used to support other students similar to Tom. I now have a system in place that can be implemented and maintained at any time, and I can support other teachers who have similar situations. The Lovitt book gives some fabulous recommendations for anger

management as well as self-esteem issues that will help me to continue implementing effective teaching practices. As Sagor says on page 77, "As you use the collaborative action research process, you will be experimenting and discovering new and better methods of practice." I look forward to continuing action research in my classroom!

Reflecting on the CAR/DBI Process This DBI project has been a real eye-opener and learning experience for me! I hadn't known the whole process to Data-Based Instruction! I am so glad I am taking this course. Using DBI requires "reflective teaching." I am constantly reviewing my data, and verifying that continuation is the best course of action right now.

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CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Julie Reed*

Description of Teacher I hold concurrent credentials in Multiple Subject and for teaching students with Learning Handicaps. As a teacher, I am very committed to my students. Their success, self-esteem, confidence, happiness are of prime concern to me. I treat my classroom as a community or family. I received a great compliment today from a student with moderate-to-severe disabilities in the classroom for special day students next door. We were talking about school, our classes and other things when she looked at me and said that my class was different from hers because I love my students. What more can I say? I treat my students with respect and am respected in return. I spent a great deal of time setting the atmosphere for my room and I been rewarded tenfold with the results.

I certainly do not want to leave you with the impression that my room is all "warm and fuzzy". My students know what is expected of them and what the consequences are if rules are broken.

Ranges of ages/grade levels of the children I typically teach My students range in grade level from 3rd to 6th grade. I have 1 3rd grade boy, 1 4th grade girl, 5 5th graders (2 boys and 3 girls) and 4 6th graders (2 boys, 2 girls). Five of them have been in my room since last year.

Description of the Setting The school is located in a very difficult section of a large urban area in North San Diego county. I would have to say that nearly all of my students come from low socio-economic families. Of my 11 students, 2 are white. I have 2 African-American students and the remainder are of Hispanic descent. Most of my Hispanic students are learning English as a second language. We are located off North River Road near College Ave.

Curriculum The question of curriculum is an interesting one because I was never provided with any kind of curriculum. I have developed one over time with the purchasing of workbooks and "stealing" from other teachers. The academic range of my students is pre-primer to 5th grade in language arts and K-4th in mathematics. You can see that I have to manage quite the juggling act in helping all my students. Science and social studies are California-standards-based 4th-6th grade adjusted to their academic levels.

Collaborators I work with all the paraprofessionals on-site. Many of my students receive speech/language therapy and/or psychological counseling. The parents of one of my students have an educational consultant, not an actual parent advocate. I work with occupational therapists, visual-impairment consultants, adaptive P.E. teachers and the school nurse. Some of my students are mainstreamed so I do work with general education teachers. I try to work as closely as possible with parents with phone calls.

I just realized how many people I deal with on a daily basis. No wonder I'm tired at the end of the day. Oh yes, I also work with the recess aides in helping them understand my students and giving them ideas on how to work with them when there is trouble on the playground (there rarely is).

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Philosophy My philosophy of instructional management is to basically do whatever it takes to help my students succeed. I have developed a great relationship with general education teachers at my site as well as the Resource Specialist. We exchange information and resources. I have learned in the brief three years that I have been teaching that it takes a lot of time and love sometimes to achieve success, but that is okay because I have a lot of time and love to give to my students. I spend the beginning of the year getting to know my kids very well; learning what they like to do, don't like to do, how they express frustration/anger, how long can they work before they need a break. I take all these factors into consideration and create a curriculum around my students' needs and IEP goals. A sense of community and/or family exists in my classroom. We all care for each other and help one another. I think this has resulted in an incredibly productive and positive environment because all my kids know that the atmosphere of trust allows them to push themselves. If they don't always succeed it doesn't matter, because they know they will succeed eventually. I use a lot of positive reinforcement. We do a lot of group work and take time to celebrate our achievements. I have always said that teaching isn't a job or career, it is a mission. I love my mission.

My Typical Atypical Students I presently have 11 students in my Special Day Classroom; 6 girls and 5 boys. The grade level range is 3rd - 6th grade. One of my students, a 4th grade girl, is mentally retarded with an IQ of 63 combined with disabilities in speech and a second language learner. Another student, a 3rd grade boy, is primarily in my room for emotional behavior and speech, and is also a second learner. The majority of my remaining students are diagnosed as learning disabled with auditory processing problems. Five of my students are second language learners, 4 of my students receive speech and language services, and 3 receive counseling services. Most of their learning styles are visual, kinesthetic, logical, and tactile. Generally speaking, they are not auditory learners. They are also low level readers, 1st - 3rd grade levels.

The Instructional Needs of My Students Textbooks do not work for my students. They are unable to read the text and it is not meaningful for them. I will usually head to the public library to check out fiction and non-fiction books that are at my students' grade level. I have learned to modify my instruction to help meet the needs of my students. A few of my students have been diagnosed as ADHD and the trick is to keep them engaged, interested, and on-task as much as possible.

Since most of my students are visual learners, it is important to provide as much visual information as possible. This can be in the form of videos and art. My students require a lot of hands-on experiences. Due to their low reading levels, books on tape and computer programs for reading are added to the instructional day.

Group work gives them opportunities to share ideas and complete tasks. Worksheets are avoided unless we do them together during direct instruction. Directions are repeated often and one step at a time. I provide extended time to complete assignments and offer frequent breaks to give them a rest.

I have 11 students in my class, 6 girls and 5 boys. The grade level ranges from 3rd to 6th grade. One of my students, a 4th grade girl, is a student with mental retardation combined with disabilities in speech and a second language learner. Another student, a 3rd grade boy, is primarily in my room as a student with emotional disabilities and speech challenges. The majority of my remaining students are students with learning disabilities, notably auditory processing problems. 5 of my students are second language learners, 4 of my students receive speech and language services, and 3 receive counseling services. Most of their learning styles/characteristics are visual, kinesthetic, logical, and tactile. They are not aural learners. They are also low level readers, 1st-3rd grade levels.

My Students' Instructional Needs My students are unable to read textbooks at their grade level. I usually go to the public library and check out fiction, non-fiction, and videos that are at my students' level and

are related to the standards I am teaching. My students require a lot of hands-on experiences. Due to their low reading levels, books on tape and computer programs for reading are added to the instructional day. Group work gives them opportunities to share ideas and complete tasks. I now utilize tutors from general education classes to help my lowest level readers learn high frequency words. We complete worksheets as a group project. Directions are repeated often and one step at a time. I provide extended time to complete assignments and offer frequent breaks to give them a rest.

Learner for My DBI Project I have decided to chose my 4th grade girl, "Marisa". She has been diagnosed as a student with mental retardation with an IQ of 63. She is also a second language learner. She receives speech and language services. Marisa has a physical condition which makes her much smaller than her age group and this conditions effects her speech. She normally speaks in one word sentences and avoids verbs. She knows the letters of the alphabet and can sound them out. Her math skills are limited to single-digit addition and subtraction with the use of manipulatives or a counting chart. Marisa has limited social skills and keeps to herself much of the time.

Academic Behavior to be Changed I would like to see Marisa improve in all areas, but will concentrate on language arts. One of Marisa's goals in her IEP is to independently write her name, address, phone number, and parents' name. She currently knows her name and the name of the street where she lives.

Connecting to the State Standards I have chosen 2 standards from first grade Language Arts under 1.0 Written and Oral English Language Conventions 1.3 Penmanship: Print legibly and space letters, words, and sentences appropriately. 1.7 Capitalization: Capitalize the first word of a sentence, names of people, and the pronoun **I**.

Monitoring Approach I will be monitoring Marisa's progress learning to write her name, address, and phone number primarily by means of a graph. Actually, I will use three graphs, because her objective is actually a three-part objective; 1) her name spelled correctly, 2) her address spelled correctly, and 3) her phone number written correctly. She will probably master the spelling of her name more easily than the other two, so one graph would not reflect accurate progress. The evidence will be her work samples. I will also provide a journal which will include my notes concerning the process and what strategies are used throughout.

The ABCs and Es of DBI in Effect for my Learner My controllable antecedents are seating, schedule, materials, activities, assignments, and my positive attitude. Unfortunately I cannot control some of my students' antecedents: poverty, second-language learners, broken homes, learning disabilities, and personal history. I find it difficult to answer the question regarding the behaviors already in effect for my learner. Their individual performances and behaviors are always in flux and cannot be considered in effect. These are ever-changing and evolving. The consequence that I use most often is immediate feedback. My students work hard and want to know right away how they did. When the consequence is a result of behavior issues, it is also immediate by means of positive reinforcement, interventions, etc. I have solved the issue of error correction by creating a sense of family and community in my room. My students do fear making mistakes. They see me make enough mistakes during the day. We trust and care for each other. We help each other throughout the day. When a student has learned a concept, s/he will ask if anyone would like help from them.

What Antecedents Can I Change in my teaching environment to get a change in the learner? I can change the classroom and homework assignments, the activities, the seating arrangement, schedule, direct instruction time, giving breaks when necessary, and reinforcement policies.

One of the main antecedents that I did change was the way I approached the learning. Marisa's goal is to learn to write her name, address, and phone number without assistance. I discovered early on in this project that Marisa needs to learn information in small chunks, so I broke down the work. She first mastered her name, then we moved on to her phone number. We continued to review her name. I introduced a word processing program to her. After our one-on-one time, Marisa spends time either in the morning or afternoon typing the information she is to learn.

What consequences can I change? Personally, I do not feel a need to change the consequences I use. However, generally speaking, feedback time and grading on a curve are consequences that can be changed. It is a goal in her IEP and she needs to learn this information for her own safety and well-being. As Lovitt remarks, goals need to be appropriate, needed and essential. The consequence in this project is all of these.

Error Correction What are my error correction procedures? Should I change them? As I stated above, my error correction procedures start the first day of school. I build a sense of community in my room. Because I constantly (not deliberately) demonstrate that even teachers make mistakes, they feel no fear about making mistakes. They understand that mistakes are part of the learning process and we can learn from our mistakes and the mistakes of others. I also let them know that perhaps they made a mistake because my instruction or directions were not clear enough. A student's mistake is not always of their own making.

Other Aspects to Note The one element that I am contemplating at the moment is peer-tutoring. There are several students in my class that would enjoy working with Marisa on this project. We are beginning SAT 9/STAR testing this week. Marisa is exempt from testing, so she will be expected to work more independently in the morning. I think I will assign a couple of my students to work with her in the afternoon. These ideas have come about through the use of "critical friends". I have an exceptional instructional aide and she has brainstormed with me a lot on this DBI project.

What Data-Based Decisions Did I Make? To help "Marisa" learn her name, address, and phone number, I made a few changes in her daily work. I provided her with a sample printing of her personal information which was laminated and placed on her desk as a continual prompt. Marisa knows how to use a computer and keyboard. When she is using the computer to practice her spelling words, she also practices her personal information. Her first try at printing the correct information proved to be a bit difficult for her, so I have divided the process into chunks; one day she will work on her name (she can write her first name correctly, but not her last name), another day on her address and still another day on her phone number. She is currently in Mexico for two weeks, and I sent her laminated aid along with paper for her to practice while she is away.

Evidence of My Reflective Teaching I believe the changes that I have made during this process demonstrate reflective teaching. I have observed her performance and have modified my instruction by breaking the work into more manageable chunks. When Marisa returns from Mexico, I will probably need to modify further because she has shown in the past (during Winter Break) that she forgets a significant amount of learned material when she is away from school for an extended. My knowledge of Marisa's memory difficulties is also evidence of reflective teaching. My instructional aide and I spend a great deal of time during our free times reflecting on our students and we brainstorm ideas.

Collaborating with the Music Teacher My school is very fortunate to have a full-time music teacher. Steven Traugh, aka Mr. Tra-La-La, is a truly remarkable educator. He and I have discussed on many occasions the importance of music in the classroom, particularly in special education setting, because he knows that we tap into all the learning styles that we can in order to help our kids. He has created songs

for memorizing the multiplication tables. He comes to my classroom every Monday for special music lessons. One of the best things he has created is a 4-book program called "Fun Phonics". These are motivating movement games and related activities to help children learn about language. There is a separate CD-ROM and activity book for long vowels, short vowels, consonants, and blends and digraphs. He includes literature links, hands-on projects, lyric sheets, bulletin board ideas. Mr. Traugh has also created "Music and Movement in the Classroom".

Our school library has copies of these items for our use. For example, Marisa listens to these CDs while she is doing her hand strengthening exercises. Even some of my more advanced students like to listen to these CDs. You can view these products on www.creativeteaching.com Never underestimate the power of music to open minds. Mr. Traugh tells me that there is a direct correlation between learning to read and play music, and increased learning. I can see the benefits with my students.

Summary of CAR/DBI Results This section implies that I have completed my CAR/DBI Project. Nothing could be further from the truth. Marisa has made important and significant progress in learning her personal information, but I am not going to complete my study simply because EDEX 639 is drawing to a close. My work with Marisa will continue until the end of this school year and into the Fall.

But I will provide a summary of my results, up to this point. Marisa began this project being able to write her first name correctly 100% of the time. Her last name was usually correct to within one letter. She was unable to write her address or phone number. She is now able to write all this personal information at an accuracy level of nearly 95%. She continues to struggle periodically with her street name, but all other information is correct. These results are much better than I had originally expected. I had underestimated Marisa's desire to succeed.

Recommendations and Advice

1. Never underestimate the willingness of a student to try harder when asked.
2. Don't over-complicate your first CAR/DBI Project. Keep it simple.
3. Be flexible. Modify your project or break it down into smaller pieces if it seems to be more work than it should be.
4. Be patient. It may take time to see results at first.
5. Remember that the focus of your project is the success of the student, not a dazzling display of charts and graphs.
6. Do not wait too long to get started. Time flies.
7. Be honest with your data.

Overall Reflection of Your Progress in Implementing Effective Teaching Practices and Principles of Collaborative Action Research to Design Effective Instructional Management Systems This has been a great experience. My student is the subject of a due process arrangement and keeping these records can only help her situation. I wish I had known about DBI before Marisa entered my classroom. I could have helped her even more. I will be conducting another CAR/DBI Project with Marisa in mathematics in the Fall. I feel this kind of data will be extremely useful in any mediations that may occur next school year. I have found this so valuable that I have been trying to create some studies for my other students either during Summer School or next Fall. This can only make me a better, more effective special educator.

References

Lovitt, Thomas. (2000). *Preventing School Dropouts*. Austin, TX: PRO-ED. ISBN 0-89079-824-9

Sagor, Richard. (1992). *How to Conduct Collaborative Action Research*. Alexandria, VA: Association for Supervision and Curriculum Development. ISBN 0-87120-201-8

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CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Diane Wedig*

Description of Teacher I'm a passionate teacher. I have been in the classroom for 14 years. I graduated with a degree in Elementary Education. Since that time I have earned a CLAD by developing and piloting a SDAIE K-2 program that included 4 languages; Vietnamese, Cambodian, Tagalog, and Spanish. Since then I have completed a Level I.

Ranges of ages/grade levels of the children I teach 9 to 13 year old students who work to meet the standards of 4th-6th grade in California. They have learning disabilities and have been privately placed. They often come into the class with emotional failures and/or distress.

Description of the Setting My students are English speakers. They come from African American and Caucasian heritage. Their socioeconomic status is mixed. One student's mother is on public assistance, several are middle to upper middle class and three are wealthy. The school is located in a small city within a larger metropolitan area. It draws students from a large area, containing urban, small town and rural areas.

Curriculum I use a combination of state approved texts, innovative programs, and teacher designed programs. The curriculum is designed to meet the state standards in math, writing, and reading. Accommodations and modifications are made to help each student have access to the curriculum. Each student works at his own level in content areas as well as supported opportunities to meet grade level standards. The curriculum I use for teaching social competence is important because my students often arrive with complex emotional components that are related to their disabilities. I teach my new students to think differently about the classroom and their learning mostly by embracing them, creating a sense of belonging and using environment. The classroom has stable, predictable structures and procedures that foster security. Within that structure is continuous opportunity to choose where to work, how to complete the task, and sometimes when to work. Desired behaviors are role played with humor and silliness but also practiced. The 'pro-social' atmosphere is built by surrounding the student with the content. The classroom is quiet, constructive, safe but lighthearted, humorous and creative. Some kids take longer to adopt their new 'home' than others but they all have eventually come around.

Collaborators I collaborate with wonderful people. The team includes counselors, Speech Pathologists/Language Therapists, Occupational Therapists, and staff who have years of experience working with students who struggle in the school environment. They are willing to work together to help a student make progress and gain from his school opportunities. We also have parents who are very invested in their child's education. They are helpful, cooperative, needy and sometimes demanding.

My Personal Instructional Management Philosophy When considering instructional management, preparation and organization are key. It is important for both the teacher and the students to be prepared and organized to participate in the learning environment. Students can be prepared to participate in the classroom learning environment by being taught routines and procedures for daily movement around the

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classroom and participation in the activities. I prepare my students to participate in my classroom by teaching them my expectations for behavior and various routines at the beginning of the year. The strategy is mentioned as one of Larrivee's (1986) effective teaching strategies of using time efficiently. As a teacher, I prepare a variety of lessons for my students with my students' abilities in mind. I attempt to teach at a variety of levels so that each student is being challenged on an appropriate level of difficulty (Larrivee, 1986). Feedback and cueing is also important for students with learning disabilities and so I try to provide an abundance of positive feedback, in addition to providing cues for students with off-task or inappropriate behavior.

My Typical Atypical Learners It is hard to categorize my students into a group. Many of them will display an emotional challenge, but this is usually linked to prior distress and learned helplessness. Most of my students fit into the learning disabilities group and I have 3 students with an Autistic/Aspergers designation. Students from both groups have had emotional challenges. My students are very intelligent but often arrive with high degrees of learned helplessness that keeps them from gaining self confidence and therefore positive self-esteem. They also lack motivation, a desire to self-advocate, organizational skills and social skills, all of which are interrelated. They often will give up before they have tried or when they first think that they are presented with a task that is beyond them. This is self-defense against possible failure. They often "see" themselves in an all or nothing position. If they are not correct, they are never correct. If something is difficult, it will always be difficult. If I don't know something, then it is an attack on my value as a person. They have expressive and receptive language deficits, difficulty in social situations, like to work with adult help, and turn in poor quality or unfinished work.

My Students' Instructional Needs My students need me to help them become independent workers, even if it is only in one small thing at a time. As they become able to care for themselves and complete work on their own they begin to see themselves as capable. This helps them to gain self-esteem and their willingness to take learning risks. Much of our early 'Read Alouds' deal with small facets of understanding how people grow, learn, and relate to each other. I employ a "To Do Today" list for independent work and a consistent structure. Activities and lessons need to be broken down into explicit step by step processes that can be learned and mastered, therefore I use Direct Instruction. Student's prior knowledge is accessed so that they can form learning links in which to build new concepts. Often those links are related to ordinary, well known activities. Such as the partial product section of a multiplication problem is the grocery cart. First we go down the candy isle and throw into the basket what is picked up by the ones digit, then we go down the cereal isle and collect from the tens digit, etc., until our shopping is complete. Then we go to the cashier and see what we've spent. I need to present information in several different intelligences so that my students have a better chance of being able to process what I want them to learn. Much of the wall space is filled with concepts presented spatially and logically and linguistically. Students in small groups

Student for Whom DBI is Designed "Cammy" is a 6th grade student with discrepancies between ability and achievement in reading, math and written language. She also has deficits in visual and auditory processing. She is a consistent worker but dependent on adult intervention to be able to complete her tasks. When she is shown a strategy to help her in a task, she will employ it well. She also has begun to create her own strategies that help her organize her work.

Academic behavior to be Changed Cammy needs to be able to successfully and accurately work with fractions to solve a mathematical problem. She needs to be able to add, subtract, multiply and divide simple fractions with like and unlike denominators. The ability to understanding and use fractions is part of the academic goals of 5th and 6th grade and is an IEP goal for Cammy. Her goal states that she be able to add, subtract, and multiply fractions of like denominators and reduce fractions to their lowest terms with 90% accuracy.

State Standards Addressed California state mathematics standards for the 5th grade; 2.3, 2.4 and 2.5 state that students solve simple problems involving addition, subtraction, multiplication, and division of fractions and mixed numbers and express them in their simplest form.

Monitoring Approach Cammy's progress will be measured with percent accuracy on each of the steps in learning to add, subtract, and multiply fractions as well as reduce them. This will be simple to figure and record as well as matching the measurement criteria for her IEP goal. Since I'm a spatial learner and the information is to help me learn about Cammy's progress, I'll put it on a graph. When I'm assured that Cammy is making progress I will share the graph with her. She will not see her chart unless it shows positive gain over several days since she will be hurt not motivated by seeing results that look like failure.
Chart A - Adding and Subtracting Like Fractions
Chart B - Adding and Subtracting Unlike Fractions
Chart C - Adding, Subtracting and Reducing Unlike Fractions
Chart D - Multiplying and Reducing Fractions
Chart E - Mixed Problems requiring Reducing - Mastery at 90% accuracy

The ABCs and Es of My DBI Project The ABC's and E's for Cammy are:
Behaviors - She will accurately work with fractions to solve mathematical problems. She needs to be able to add, subtract, multiply and divide simple fractions with like and unlike denominators.
Antecedents- She will participate in large group discovery lessons using manipulatives and other non numerical techniques to help her understand:

a. The nature of fractions
b. Why fractions need to alike in order for them to be added and subtracted
c. What constitutes a whole or "1" so that she understands that when she changes the denominator she has not changed the value of the fraction
d. What finding the "lowest term" means
She will work problems with a small group on a white board to check for understanding and ability to proceed on her own.
She will have daily practice with the corresponding skill investigated that day in the form of "problems" and story problems.
She will be shown how to use a multiplication chart to help her find the least common multiple or the greatest common factor.

Consequences- Cammy's daily practice will be scored and recorded. Any day that Cammy does not meet with 90% accuracy the teacher will analyze what type of errors she is making and then work with her individually or in a small group to help her find out how she was "tricked" by the problem. At these sessions it will be important for Cammy to understand where her mistakes are made and how to form additional strategies to help her achieve accuracy.

Error Correction Procedures- Every day a teacher will observe Cammy as she works independently for understanding and to see if she is using her strategy for accuracy from the day before. If not, she will be reminded of what she decided to employ. She will receive immediate positive feedback when she uses the strategy and may have her strategy become an "idea" for others to use. When the adult notices an accurate answer, it will be immediately marked correct. The adult may also say, "I think this one tricked you, check it out.

What "data-based" decisions did I make? After examining Cammy's progress with fractions on her graph, it was apparent that she had mastered adding and subtracting fractions with like denominators but had difficulty working with unlike denominators. I decided to change two antecedents in order to help

Cammy.
1. Give her another session with the manipulatives to show her what she is doing when she changes the denominators.
2. Show her how to use a multiplication chart to help her find the least common multiple.

Any day that Cammy does not meet with 90% accuracy the teacher will analyze what type of errors she is making and then work with her individually or in a small group to help her find out how she was "tricked" by the problem. At these sessions it will be important for Cammy to understand where her mistakes are made and how to form additional strategies to help her achieve accuracy. I also have begun to have Cammy do her daily practice with another student in a cooperative manner. This gives her ideas of where to go next and helps her stay on task.

What Consequences Can I Change? Since I've already made the changes, I included them in the first answer. Her work is not graded but simply used to find what needs to be retaught in a different manner and when she is ready to move ahead.

What are My Error Correction Procedures? Every day a teacher will observe Cammy as she works independently for understanding and to see if she is using her strategy for accuracy from the day before. If not, she will be reminded of what she decided to employ. She will receive immediate positive feedback when she uses the strategy and may have her strategy become an "idea" for others to use. When the adult notices an accurate answer, it will be immediately marked correct. The adult may also say, "I think this one tricked you, check it out." This is working very well and is comfortable for Cammy. No change at this time.

Reflections on my Teaching In what ways have I applied the concepts of DBI as a method of improving my ability to help students? I decided to graph all of my students' progress as they worked with fractions. The graph clearly and readily showed who needed to have the instruction either modified or changed. It was easy to make a decision to change the antecedents with some students who didn't finish by changing the order in which they worked or others who had difficulty with the concept to decide to teach them other strategies. I also realized that my data was influenced by the fact that I watch the progress of my students daily and often make adjustments on the spot. Therefore, Cammy's progress was monitored each day and Cammy was then engaged in a multiple of activities that would help her gain understanding. I did not want to wait for several days of scores to make changes. How does this fit into data based instruction? It is data based on a mini-system. It may be that I'm charting her progress too soon, before she is independent with the skill. Or it may be that since I have a small number of students it is easier for me to notice when she has difficulty and catch her early?! In my mind this is best practice and the point of data based instruction is to make the teacher aware of the needs of the students. So on one hand, I'm pre-empting the data and on the other I'm using it.

Summary of CAR/DBI Results This DBI was designed for a sixth grade student who has struggled in mathematics for four years and has in fact had the same mathematics goal year after year until the parent engaged an advocate and was transferred to this school. The student is quiet, intelligent and desperately wants to succeed. The DBI has shown the the student can not only succeed in mathematics but can make significant progress. The antecedents that were most successful were explicit, step by step instruction, cooperative group problem solving and independent practice using lessons presented spatially and kinesthetically. "Cammy" has used multiplication and division to add and subtract fractions with like and unlike denominators. She has also learned to reduce fractions to their lowest terms and change improper fractions to mixed numbers at about an 88% rate of accuracy on daily independent work. This was the academic behavior that was stated in her IEP goals, although her goal requires an accuracy rate of 90%. She is so happy to be succeeding that the feeling of accomplishment has been a marvelous, although unquantifiable consequence of her work with fractions. She is pleased to see a graph of her

scores with its consistent high marks and is please to be among the students who can give help. At any point where understanding is in question, she works with an adult to find how a problem was "trying to trick her."

Recommendations and Advice Cammy needs to continue having mathematical lessons taught explicitly, step by step, incorporating spatial and kinesthetic representation at the concept level, a directed and explicit connection made between the concrete and symbolic form and working cooperatively with the symbolic alone. She easily becomes confused in multistep symbolic procedures that she is unfamiliar with.

Overall Reflection of Progress in Implementing Effective Teaching Practices and Principles of Collaborative Action Research to Design Effective Instructional Management Systems I'm pleased with the ease with which we were encouraged to collect the data and represent it. So often collecting systems are so time consuming or burdensome that they in effect become unusable for a teacher who is responsible for many facets of learning and many students. The recording system was able to do double duty as a consequence in that the graphing (for a spatial learner) was very effective in showing success. Since I used this same procedure for all of my students, it made it very easy to see who needed additional instruction or personal attention. It kept each student in the forefront.

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*This project was submitted in partial fulfillment of the requirements for EDEX639, under the supervision of Toni Hood, Special Education Assistant Professor at CSUSM, and Ann Nevin, Special Education Professor at ASU West, during Spring 2002. Protect the intellectual property rights of the author by using appropriate citation techniques when referring or excerpting aspects of this project.

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CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Diego Ochoa*

Description of Diego as a Teacher As a teacher, I can best be described by one word: eclectic. Each and every day I try to motivate my students to reach for goals no yet imagined by them and their support system. As such, I try to provide as many scaffolds as possible. I implement thematic instruction, a balanced literacy approach, character education and physical education.
I graduated from CSUSM with a degree in Social Sciences. I have completed the LEVEL I and II Special Education Credentials and the Masters courses in the last 2 years. I am currently applying to the Literacy and Administration Masters program at CSUSM.

Ranges of ages/grade levels of the children I typically teach children in grades 4-6. Their ages are 9-12.

Description of the Setting I teach in the Logan area of San Diego. It is a community of immigrant families. Approximately 94% of the students qualify for Free or Reduced Lunch. Approximately 78% of the students are English Language Learners (ELLs), Spanish speaking. My classes are a bit more diverse because my school serves students from 7 school areas.

Curriculum In my class, I use level appropriate reading materials to teach literacy. I access as many online resources as possible. I have purchased phonics based readers to advance the phonemic awareness of my students.

For Math, I access EXCEL materials. However, my math lessons are infused with pre-vocational concepts.

For the arts, I use district texts. However, I employ as many alternative approaches as possible (e.g., thematic instruction and reader's theater)

My Collaborators The people with whom I typically collaborate Among my many collaborators are my professors, my colleagues at work and at the university, my lovely wife, my administrators, my students who motivate me, my community, my administrator designee, my support provider and my community families.

My Philosophy My instructional philosophy is guided by 5 principles that I was able to make into an acrostic-- CHART:
Community,
Hope,
Accountability,
Risk and
Trust.

The teaching is simply a manifestation of these guiding principles. In special education, our students

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need more than what is typical. They need to be given the best of everything. Using guiding principles is highly important to me because it gives me the vision I need to achieve long term goals. Having said that, my philosophy of instructional management is as diverse as the students I serve. I believe that classroom management is directly tied to the community created within the first week of school.

Creating a supportive community where work is rewarded and exemplars are promoted is extremely important. I employ the use of classroom meetings when an issue of discrimination or physical aggression is concerned. I also believe that as an adult, I have the power to use humor to diffuse situations and create a sense of comfort for students.

Curriculum choice is an equally important issue. I have been able to purchase various instructional materials that have opened doors for my students. More importantly, I have become aware of materials by discussing with colleagues during college courses. In particular, I have made the conscious choice to use materials that can be implemented in a thematic manner, which is to say that I can use the materials across content areas.

Teacher to student interactions are also very important. I currently employ the one-to- one conferring strategy, the direct instruction (To-With-By) approach, and the cooperative group learning model. It would be silly to assume that one approach is best for the teaching of discrete skills. In fact, a healthy combination of instructional approaches is best. For instance, I might use a direct instruction model to introduce a grammar lesson. I would follow it up with a cooperative group lesson, whereby students demonstrate mastery in groups and I would culminate the experience by conferring on a one-to-one basis with students who struggled with the concept.

I believe in providing students with frequent opportunities for success and calculated risks with supports. As such, I do not require students to learn on the run. I want them to know what they know and be able to tell me what they do not know. This way, I can teach them what they need to know each day. Part of this approach requires that the students are informally and formally assessed on a frequent basis. This is also the central portion of my instructional focus.

As Larrivee (1986) states, it is necessary to respond supportively to problem behaviors related to learning as distinguished from conduct problems. Forness et. al., defined highly appropriate practices as Cognitive Behavior management, Mnemonic Strategies and Enhancing Reading Comprehension. I have written Behavior Intervention Programs and believe that they are highly central to effective teaching.

Finally, computer aided instruction is evident in my everyday teaching. I employ the use of 5 Alphasmarts and take every opportunity to build on effective teaching by implementing the use of computer technology to provide supports for students.

The Atypical Learners in my Learning Community I have quite a variety of characteristics among my learners. I think that it is risky business when you start paying too much attention to what a students' characteristics should be, instead of finding out what their characteristics are. I have spent 2 years with almost the same students. As such, I have come to know my students in an in-depth way.

In my class, I teach 2 students with a disability qualification designated as Attention Deficit/Hyperactivity Disorder (ADHD). They exhibit the hyperactivity characteristics such as: (1) difficulty focusing on one task; (2) high level of distractibility; (3) frequent body movements. What is interesting about both students is that they are highly competent in situations where they are engaged with another student as their peer coach. I think that when they are given a responsibility that is not overwhelming, they feel supported enough to succeed. Couple that with the social factor and self esteem

factor related with being an expert coach, the students arrive at success.

I also teach a group of 4 students that are designated as dual language learners with specific learning disabilities. They demonstrate a wide range of specific needs from visual motor integration to auditory processing to short term memory. Some of their typical characteristics are: (1)a need for re-teaching of prior learning; (2) a need for assistive technology both high and low tech; (3) difficulty accessing ESL. The fact that my students have special needs does not exclude them from having the same needs of other English Language Learners. However, they are not necessarily more needy in terms of language acquisition. Building a strong phonemic awareness base is important to language acquisition and many of the activities involved with that are activities that my students enjoy.

Instructional Needs How do these characteristics inform learning needs? For myself, all student characteristics inform their learning needs. It is only by knowing their individual learning needs that effective teaching can occur. For instance, I teach a student whose left hand is difficult to use for the student and subsequently he writes sloppily. Rather than teach the student to write 1% less sloppily. Instead, I choose to provide the student access to an aplhasmart, whereby the student writes all Written Language classwork on the computer. This allows him to focus on learning new concepts and not dwelling on his physical disability.

As for my students with ADHD, I use as many positive behavior management techniques as possible. Some of my favorites are the use of humor, proximity control, redirecting and class meetings.

In terms of instructional practice, I use cooperative group learning as a way to keep my cluster of students with ADHD on task and involved. For my English Language Learners, I use curricular and instructional approaches that best support their understanding of content and their language acquisition.

A balanced literacy approach with phonics instruction and opportunities for exposure to rich pieces of literature. As English Language Learners, they need exposure and practice with Daily Oral Language and use Thematic Instruction to improve their vocabulary and concept acquisition.

CAR/DBI Project Student The learner I have selected to work with is Eddie P. Eddie P is an eleven year old male student. He is an English Language Learner and is designated as a student with a specific learning disability. More specifically, Eddie is a student with receptive communication, short term memory and visual sequential deficits. Eddie is a warm, bright and respectful learner. His likes are: (1) his family; (2) Toluca Soccer Team; (3) reading; and (4) Nintendo games. His dislikes are (1) tomatoes; (2) missing school; and (3) all soccer teams except Toluca Soccer Team.:)

Academic and Social Behaviors of Concern Currently Eddie begins crying when asked to respond to questions in a setting where more than one student is involved. Those instances can be from 1-3 times a day. Eddie tends to cry for 1-4 minutes. When Eddie is asked questions that he knows the answer to, he cries on about 5 of 10 occasions. When Eddie is asked questions that he does not know the answer to, he cries every time. It seems that Eddie cries more intensely when he is asked questions he does not know the answer to in a large group setting.

California Standards The academic/social objective being for Eddie to better express himself in a group setting, I decided to use the adopted 1999 English language Development Standards, I have chosen a Listening and Speaking Standard. The standard is designed for an English Language Learner at the intermediate level of language development. The standard reads: English language Arts. Comprehension of, Organization and Delivery of Oral Language: Actively participates in social conversations with peers and adults on familiar topics by asking and answering questions and soliciting

information.

Instructional Interventions Some instructional activities that could benefit Eddie are unconventional. The more flexible interventions may be reserved for use when Eddie attempts to answer a question that he does not know the answer to. In such circumstances, the more severe response to the request, the more flexible the intervention that will be needed.

(1) Extended response time: As a rule, Eddie should always be awarded, non-invasive response time. Other students should not be allowed to goad Eddie or hurry him during this time.

(2) Preferential seating: This should include a seat next to a supportive buddy and a seat near the teacher. This is always appropriate for Eddie.

(3) Highly Contextualized Questions: These are to be given to Eddie when the situation arises that he does not immediately know the answer to the question. For instance, if Eddie is asked to answer a question related to an inference made about a read- aloud, the teacher should provide him contextual clues such as, " Why is the farmer happy? Maybe it has something to do with his cow." In this example, the teacher is providing Eddie with a clue about the cow.

(4) Pairing: Eddie should be paired with a classmate that he works with during buddy reading. This is expected to supply the need for emotional support when preparing to speak out in the group.

(5) Answer Cards: Eddie can be provided answer cards to use during times when he is asked questions he does not know the answer to. These cards will read "Please pass me" or "Thank you. But I prefer not to respond" or "I do not know the answer." This is to be used initially as an alternative to allowing Eddie not to respond.

(6) Answer Notepad: Eddie will be provided a special hand held notebook, on which to write short answer responses. This would be used in the event that Eddie chooses to respond with a response other than what has been provided to him on the answer cards.

(7) Scripted Questions: In the event that Eddie has trouble operating with the aforementioned interventions, Scripted Questions should be provided to Eddie one day prior to being asked the question. Since this intervention is so time intensive, it is to occur only after four consecutive occasions wherein Eddie does not respond to the questions with an adaptive response. This is to occur no more than twice a week.

Academic and Social Behaviors of Concern Currently Eddie begins crying when asked to respond to questions in a setting where more than one student is involved. Those instances can be from 1-3 times a day. Eddie tends to cry for 1-4 minutes. When Eddie is asked questions that he knows the answer to, he cries on about 5 of 10 occasions. When Eddie is asked questions that he does not know the answer to, he cries every time. It seems that Eddie cries more intensely when he is asked questions he does not know the answer to in a large group setting.

Link to IEP Eddie has an IEP written by another school. His IEP is up for review in May. I will be adding a behavioral, Eddie has been given preferential seating as an accommodation. I would venture to guess that Eddie was allowed to "hide out" in his last class. THAT IS NOT THE CASE WITH OUR CLASS! He has language, and I intend to help him use it.

Approaches for Monitoring The monitoring of this behavior will be a three step process. I will

ascertain Eddie's responses in three different settings, which are large group setting, small group instruction and buddy sharing.

During Buddy Sharing Time, Eddie P. will have a laminated card where he can write the number of times he does and does not give a response to a question asked of him. During these Buddy Sharing sessions, I always post three questions that each student must ask each other about their piece of literature. This way, Eddie P. can sit with a good friend and have the control of keeping tabs on his own growth in communication.

During Small Group Instruction for Reading, I will begin by placing a clipboard on the desk I am sitting at. On the clipboard, will have a worksheet with a designation of what type of response Eddie P. gave to a given question. His answers will be given a score of 0-4 as follows:

4 for a positive verbal response,
3 for a positive written response,
2 for the communication of a need for more time followed by a written or spoken response,
1 for the communication of a need for more time followed by no response and 0 for a tearful response).

During Read Aloud times, I will use the same clipboard and scoring system used for the Small Group Instruction.

The rationale behind the three step scoring process is simple. I want to find out if Eddie is aware that he demonstrates ability in smaller settings. I also am interested in finding out how often Eddie gives a response across each level of the scoring scale.

Mostly, I want to know how much of an impact the size of the group has on the targeted behavior. That way, I can isolate the variable and use it to empower Eddie.

ABC Analysis *Antecedents that Precede the Behavior* The students are all invited to sit in a circle in the rug area and partner talk for one minute about what they will be saying in the group discussion. When the oral language development takes place during Reading, the students all listen to a read aloud. Prior to engaging in a group setting where questions will be asked, such as a read aloud or shared reading, Eddie begins to squirm in his seat. He also stares off into the distance. Eddie also scratches his thumbs with his index fingers causing peeled skin.

Behavior to be Decreased Currently Eddie begins crying when asked to respond to questions in a setting where more than one student is involved. Eddie cries almost every time he is asked a question in front of peers. Those instances can be from 1-3 times a day. Eddie tends to cry for 1-4 minutes. When Eddie is asked questions that he knows the answer to, he cries on about 5 of 10 occasions. When Eddie is asked questions that he does not know the answer to, he cries every time. It is apparent that Eddie cries more intensely when he is asked questions he does not know the answer to in a large group setting.

Consequences that Maintain the Behavior When Eddie begins to cry, he is not required to speak in front of other students. He is immediately allowed to go to the bathroom and cool down once he returns for 2 minutes. He is then allowed to return to class and is not asked questions during that lesson. It is possible that Eddie begins to cry so that he will not need to speak in front of peers that he perceives as

Error Correction Procedures When Eddie provides an incorrect response in a large group setting his

response in always dignified! Generally, I will then restate the question to anther student. Once I have been given a correct response, I will return to Eddie and ask to him to agree or disagree with the correct response.

Changes Considered --Antecedents--I have tried many times to change the antecedents. I think I have flawed in that I have not kept data on those changes. Some of the changes I can create are: (1) a change in the number of students who participate in the large group setting (2) a change in books I choose for Read Aloud (3) a change in the time of day I hold the oral language and (4) a change in who controls the questions asked in the group.

Consequences--I can eliminate the use of a bathroom break for Eddie, if and when, he begins to cry. I can also require Eddie to complete a response, in writing, to the question by the end of the day.

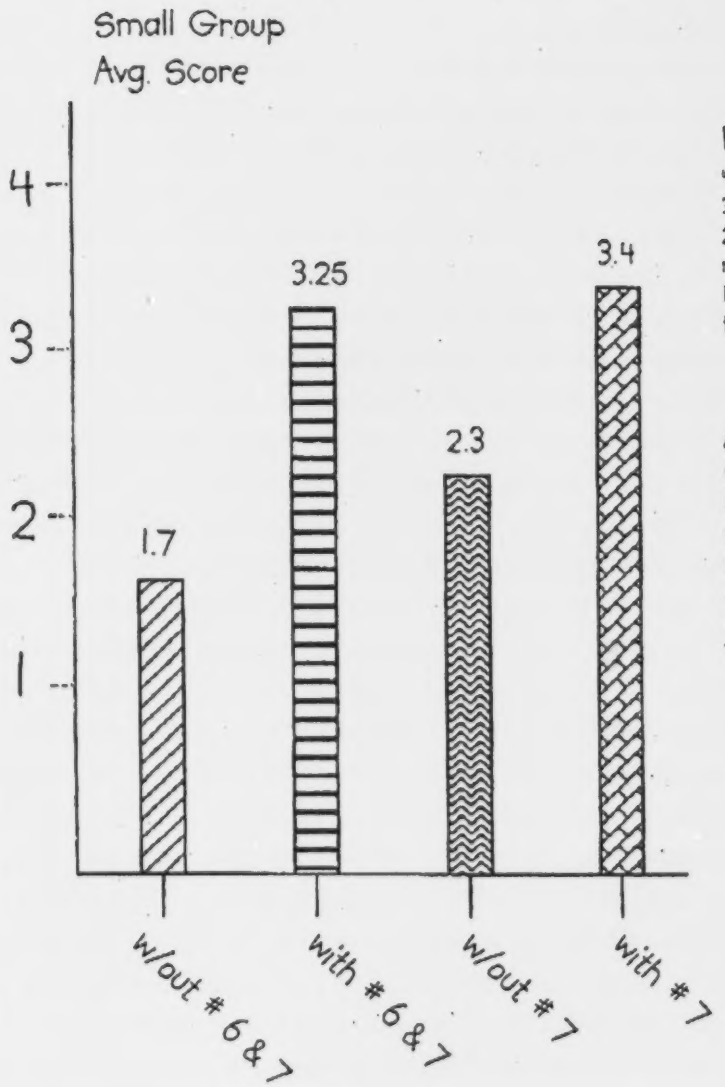
Error Correction--I don't believe that my error corrections are ineffective in as much as they enable dependent and timid behavior. I might want to adopt a more student-centered error correction procedure like cooperative learning groups.

Analysis of Progress I have decided to report my results using the scores that I gave to each type of response that Eddie gave during the time that I have been recording data on his progress. The scale goes as such: His answers will be given a score of 0-4 4 for a positive verbal response, 3 for a positive written, 2 for the communication of a need for more time followed by a written or spoken response, 1 for the communication of a need for more time followed by no response and 0 for a tearful response). I will then average out the scores that Eddie earned for the accommodations that were provided for Eddie during the data collection process. The scores will look something like this: AVG Score
Interventions 1,2 & 5: **2.88**
Interventions 1 & 4: **1.92**
Interventions 1 & 7 : **3.44**

Are the instructional changes creating the desired change in the learner? I have found that two interventions that I have utilized with Eddie have had profound effects on his learning. Intervention #7, (7) Scripted Questions: In the event that Eddie has trouble operating with the aforementioned interventions, Scripted Questions should be provided to Eddie one day prior to being asked the question. In particular, this intervention has been so successful that I have been able to find success with Eddie in every setting. That is, it doesn't matter if it is in a small group, or large group, Eddie performs when he knows what will be asked.

What data based decisions did I make? In selecting appropriate changes for Eddie, I had to considered many different things. For one, I had to consider whether or not it would be appropriate to change the desired behavior. I chose not to because I felt that the behavior was absolutely central to his future academic and behavior success. I then considered changing the number of students in the group. I decided I wanted Eddie to stretch as much as he could so I implemented several different changes. First, I initiated these changes because I noticed that the data was telling me something. For instance, when I had Eddie in a large group activity, he performed less effectively than when he was in small groups. I then tried to further isolate the activity by I instituted a change in the number of students who participate in the large group setting. I also scheduled for a student who sometimes teases Eddie to have a small group activity during large group share-outs twice a week. One day, I chose a read aloud that Eddie had read before and he participated wonderfully. So I allowed for Eddie to read the book the night before we discussed it. This has also seemed to help the cause. Finally, I eliminated the use of a bathroom break Eddie, if and when, he begins to cry. Since then he has returned more quickly to the activity.

Progress with Accommodations



Rubric of Scores

4 for a positive verbal response,
3 for a positive written response,
2 for the communication of a need for more time followed by a written or spoken response,
1 for the communication of a need for more time followed by no response and 0 for a tearful response).

Accommdations

(1) Extended response time
(2) Preferential seating
(3) Highly Contextualized Questions
(4) Pairing
(5) Answer Cards
(6) Answer Notepad
7) Scripted Questions

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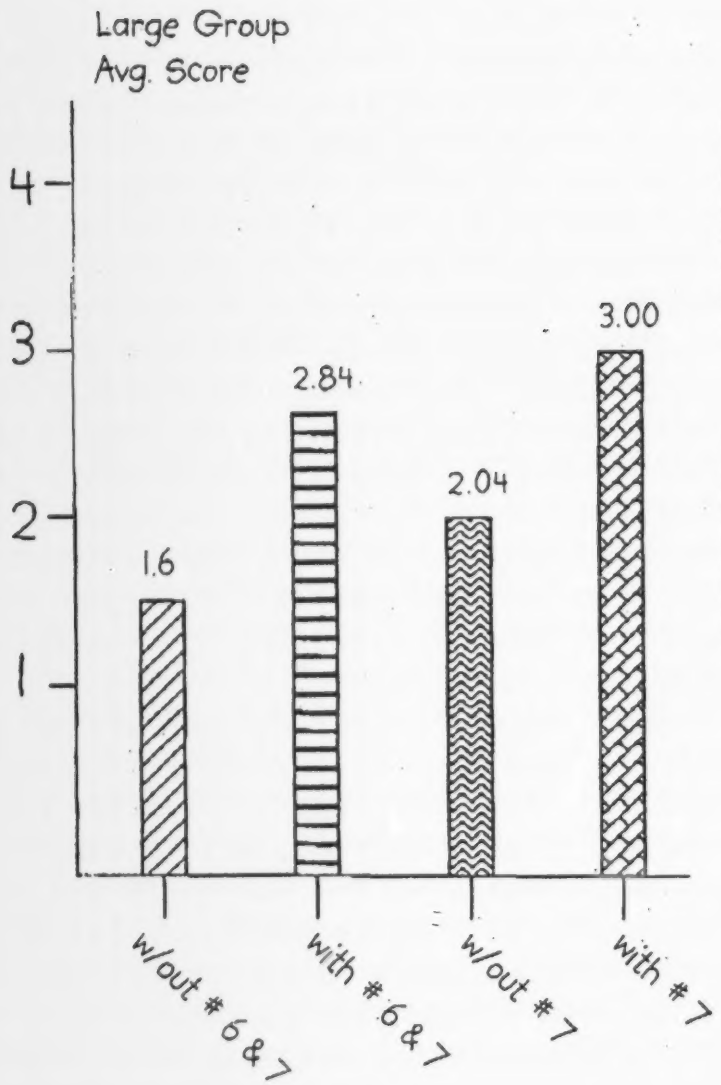
Progress with Accommodations



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Accommdations

(1) Extended response time
(2) Preferential seating
(3) Highly Contextualized Questions
(4) Pairing
(5) Answer Cards
(6) Answer Notepad
7) Scripted Questions

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Recommendations and Summary of Results of the Collaborative Action Research Project: The learner I selected to work with is Eddie P. Eddie P is an eleven year old male student. He is an English Language Learner and is designated as a student with a specific learning disability. Eddie used to cry when asked to respond to questions in a setting where more than one student is involved. Some instructional activities that were used were unconventional. Highly Contextualized Questions were to Eddie when the situation arises that he does not immediately know the answer to the question. Answer Cards were provided so that Eddie use during times when he is asked questions he does not know the answer to. These cards read "Please pass me" or "Thank you. Scripted Questions were provided to Eddie one day prior to being asked the question. The monitoring of this behavior was a three step process. I ascertained Eddie's responses in three different settings, which are large group setting, small group instruction and buddy sharing. I created a worksheet with a designation of what type of response Eddie P. gave to a given question. His answers will be given a score of 0-4 4 for a positive verbal response, 3 for a positive written response, 2 for the communication of a need for more time followed by a written or spoken response, 1 for the communication of a need for more time followed by no response and 0 for a tearful response).

Please click here to view Eddie's Progress. Progress with Accommodations . It may take a while to load but it is worth it to see the visual representation of the power of the accommodations--in particular, Scripted Questions.

Ultimately, giving Eddie scripted questions did the most to help him succeed. In the end, I learned that Eddie was more concerned with knowing what to say than he was about who was there to listen.

Advice To anyone endeavoring to embark on this journey, I have the following advice:
(1) Think long and hard about the student
(2) Consider when and where the work will take place; Make yourself a chart to check up on completion of tasks such as data collection
(3) Don't give up on making a difference and
(4) Get ready to document EVERYTHING**

This process has been rewarding. The first day I saw Eddie answer questions without tearing up, I almost started to tear up. I think whenever I can effect that type of change for a student, I am doing something really right. Especially when I can create this sort of change with the support of my edex639online classmates and my two professors, I feel exponentially empowered and driven to succeed.

What was most helpful to me was the opportunity to complete this work with the many examples that were given in our online course. Many times, I felt frustrated and brain blocked. When that happened, I looked online for solutions and I always found them. If there is one thing I would change, it would be that I would choose to work closely with another professional in a similar situation.

References

Lovitt, Thomas. (2000). *Preventing School Dropouts*. Austin, TX: PRO-ED. ISBN 0-89079-824-9

Sagor, Richard. (1992). *How to Conduct Collaborative Action Research*. Alexandria, VA: Association for Supervision and Curriculum Development. ISBN 0-87120-201-8

**This idea was liberally (^_^) BORROWED THAT FROM ANN NEVIN's contribution to a class discussion on the opportunities that due process hearings provide special educators.

*This project was submitted in partial fulfillment of the requirements for EDEX639, under the supervision of Toni Hood, Special Education Assistant Professor at CSUSM, and Ann Nevin, Special Education Professor at ASU West, during Spring 2002. Protect the intellectual property rights of the author by using appropriate citation techniques when referring or excerpting aspects of this project.

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Collaborative Action Research

CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Lis Winther*

Description of Teacher I have a lifetime teaching credential for Mathematics and Home Economics (Secondary) from the province of British Columbia, Canada, earned at University of British Columbia, Vancouver, BC, Canada. After arriving in California and attending CSUSM, I now hold California Multiple Subject, Level 1 Education Specialist, and Mathematics teaching credentials. I am currently working on a Level 2 Education Specialist credential. I have taught for a total of nine years. My first teaching positions were in small towns in the central interior of British Columbia. I worked in Junior High Schools teaching a combination of Mathematics and Home Economics. I have worked in my current teaching position for 5 years and teach primarily mathematics to students with learning disabilities.

Ranges of ages/grade levels of the children I typically teach I currently teach students in grades 7 through 12, ranging in age from 13 and 18.

Description of the Setting I work at a small private school located in Del Mar, a small, affluent city situated north of San Diego. The school is a private institution and run be a non-profit board of directors. Approximately 35-40% of our students are privately funded with the other 60-65% being funded by a public school district. Approximately 90% of the students attending Winston are Caucasian. There are 5 students of African-American heritage, 8 students with Mexican American heritage and 1 student with Middle-Eastern heritage. Only 2 students speak languages other than English at home.

Curriculum In addition to teaching a modified Physics class, I teach Mathematics courses ranging from basic skills, Pre-Algebra, Algebra, Algebra II and Geometry. Within the math classes, an individualized independent study style of instruction is mandated by the administration. Into this format, I incorporate manipulatives, mini-lessons with examples, guided practice and review. Within the Physics class, I utilize demonstrations, student exploration, labs, notes, and projects.

Collaborators Within the classroom, I collaborate with Speech and Language Therapists, paraprofessionals (TA's) and, occasionally, other teachers. When considering the IEP process, I collaborate with district case managers, school psychologists, the school IEP coordinator, other teachers, parents, and advocates.

Philosophy When considering instructional management, preparation and organization are the key. It is important for both the teacher and the students to be prepared and organized to participate in the learning environment. Students can be prepared to participate in the classroom learning environment by being taught routines and procedures for daily movement around the classroom and participation in the activities. I prepare my students to participate in my classroom by teaching them my expectations for behavior and various routines at the beginning of the year. The strategy is mentioned as one of Larrivee's (1986) effective teaching strategies of using time efficiently. As a teacher, I prepare a variety of lessons for my students keeping my students' abilities in mind. I attempt to teach at a variety of levels so that each student is being challenged an appropriate level of difficulty (Larrivee, 1986). Feedback and cueing is also important for students with learning disabilities and so I try to provide an abundance of positive feedback, in addition to providing cues for students with off-task or inappropriate behavior.

My Typical Atypical Learners The majority of students within my classroom have "specific learning disabilities" and / or ADD / ADHD. Although there is a broad range of abilities, my students share many learning characteristics:

* focus for only short periods of time, easily distracted,
* focus on one new concept or idea at a time,
* low frustration tolerance,
* reactions to changes in routine * poor organizational skills,
* difficulties accessing previously learned concepts
* limited mastery of basic math facts

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* creative
* intelligent
* want to learn, but are afraid to fail (again)

These learning characteristics are addressed by the following instructional strategies:
* frequent feedback (point system, as well as verbal prompts, praise)
* chunking of material to manageable sections, with many examples,
* frequent "check-ins" for understanding,
* reduced assignments (in some cases),
* providing advance notice for any changes in routine,
* required use of homework calendar, with routines for collecting homework and classwork,
* repetition and review for retention of concepts
* cues for recalling previously learned concepts and/or processes
* positive feedback and more positive feedback.

My Students' Instructional Needs These learning characteristics are addressed by the following instructional strategies:
- frequent feedback (point system, as well as verbal prompts, praise)
- chunking of material to manageable sections, with many examples,
- frequent "check-ins" for understanding,
- reduced assignments (in some cases),
- providing advance notice for any changes in routine,
- required use of homework calendar, with routines for collecting homework and class work,
- repetition and review for retention of concepts
- cues for recalling previously learned concepts and/or processes
- positive feedback and more positive feedback

Learner for My DBI Project Tom is a 13 year old male with specific learning disabilities in reading and math as well as significant emotional difficulties. Although Tom reads 2-3 years below grade level, he participates in current events discussions with great amount of fluency and brings a great deal of background information to these group discussions. In mathematics, Tom is also working 2-3 years below grade level and struggles with math fluency in recalling basic math facts. In his past school, he was often pulled from the regular education classroom for special services during math lessons. These lessons were "made-up" with one-on-one instruction during a latter time. Because Tom is working well below grade level in both reading and math, he is often offered additional inclass assistance. He dislikes being "singled out", although many other students are also receiving one-on-one assistance and resists attempts to assist him. Tom often appears withdrawn and chooses not to participate in class activities. He often arrives late to class and makes frequent requests to leave the room. If he is not permitted to leave the room, he will often complain of illness.

Academic Behavior to Improve While Tom's withdrawn behavior and symptoms of depression are being addressed within the counseling setting, teachers would like to focus on Tom arriving to class on time and participating in class activities. Tom's annual IEP was held recently and a goal was written to focus Tom's attention on promptness. It was felt that Tom needed to take responsibility for arriving to class on time, but required immediate feedback. A daily contract was designed to provide Tom with immediate teacher feedback for arriving to class on time, participating in class, and handing in homework. Rewards for improving these three items were arranged at home and at school.

Additionally, academic skills were also addressed in the IEP. One specific goal to be addressed specifically in the math class is improving Tom's skills with fractions. He is currently working on simplifying fractions and will move into multiplying and dividing fractions. His IEP goal requires that he multiply and divide fractions with 80% accuracy, as well as adding and subtracting fractions with unlike denominators with 80% accuracy.

State Standards Addressed The academic objective of completing operations with fractions is linked to the state standard 1.2, Number Sense for Seventh Grade Mathematics Curriculum. The standard requires that "Students know the properties of, and compute with, rational numbers expressed in a variety of forms:
1.2 Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals, and take positive rational numbers to whole-number powers"

Monitoring My Student's Academic Behaviors I will monitor Tom's progress towards the behavioral goals of arriving to class on time, increasing time on task and handing in homework by completing the daily contract and collecting the data on these three behaviors. Tom's progress on the academic goal of operations with fractions will be monitored with short daily quizzes. Tom will complete a 5-question quiz each day, testing the skills learned the day before. Scores (percent correct) will be recorded and monitored for improvement.

To measure Tom's progress on the academic goal, I will monitor class work and home assignments completed for accuracy and understanding of the concepts.

Tom has already responded positively to the increased feedback. Although his attention sometimes drifts from his work, the increased focus on grading class work as he is completing it appears to have a positive effect on his willingness to work in class. Additionally, Tom has reacted positively to the "quick quizzes". Previously, Tom had not displayed either positive or negative attitudes towards quizzes and test, they were simply something he had to do. With the addition of the "quick quizzes", he suddenly appears to motivated by the grades, finishing the quizzes quickly and requesting grading immediately.

To measure Tom's progress on the behavioral goal, I will use a contract that includes a checklist for on-time arrival and a rating scale for time-on-task. The contract is filled out be all of Tom's teachers and faxed home at the end of the day. Again, Tom has already responded positively to the increased feedback for his on-time arrivals. With the contract being faxed home, Tom receives rewards at home for "good days" with on-time arrivals, participation rating in the upper portion of the scale and completed homework. Although Tom is generally fairly withdrawn, he appears to take some pride in a "good day" with his completed contract. I have asked him whether he would like to earn rewards at school for his improved behaviors, but Tom indicated that he did not need these rewards.

The ABCs and Es of This DBI Project The focus behaviors for Tom include the academic skills of multiplying and dividing fractions and the behavioral targets of promptness and class participation.

The **antecedents** already in place for Tom's academic target include:
- curriculum modifications such as worksheets with a large type and a great deal of space for working out problems,
- instruction that provides numerous examples paced at Tom's individual learning rate, and
- one-on-one teaching as it is required and appropriate. The antecedents already in place for Tom's behavioral target of improved time-on-task and prompt arrival to class include:
- an auditory reminder (bell) to indicate that it is time to proceed to class,
- teacher reminders and prompts to stay on task.

The **behaviors** that are already being displayed by Tom and approximating the academic goal include:
- conceptual knowledge of a fraction,
- ability to simplify fractions.

The **consequences** already in effect for Tom include:
- teacher feedback 3+ times per class on participation / time-on-task and task accuracy,
- contract with vice principal for game time in return for not being sent out of class for a week.

The **error correction procedures** already in effect for Tom include:
- teacher feedback 2-3 times per class on task accuracy,
- teacher feedback in the form of grades on homework,
- teacher feedback on promptness and time-on-task in the form of verbal comments.

Antecedents to Change Antecedents that can be changed in my teaching environment to encourage a change in the learner include:
- providing a greater frequency of feedback by checking work 4 or more times per class
- grading work immediately
- providing more positive comments about work and on-task behavior
- providing more opportunities for Tom to show mastery of the skills, but on shorter assessments

- providing immediate positive feedback for prompt arrivals, but private, constructive feedback for late arrivals,
- provide positive feedback and rewards for on-task behavior.

Consequences That Can Be Changed Consequences that can be changed for Tom include immediate feedback on his behavior. By having the daily contract completed by teachers and sent home Tom not only will receive immediate feedback, he also receives rewards at home. By meeting the behavior goals targeted by this contract, Tom will encounter fewer disciplinary consequences through the vice-principal. It will be important to reinforce these changes by providing positive rewards such game time, or lunch with a friend and teacher or the vice-principal.

Consequences that can be changed to assist Tom meet his academic goal include further positive rewards. Although he has been asked about possible tangible rewards for improved grades, Tom has not expressed any interest in such rewards. He appears to work well toward goals of a specific number of pages or questions and take a real satisfaction in understanding a concept. To encourage this intrinsic motivation, daily goals will be set and short quizzes completed frequently.

My Error Correction Procedure My error correction procedures include in class spot checks for understanding, with positive feedback for students on the right track, or quiet redirection for students with errors in their work. I usually try to review with the student problems he/she has completed correctly and analyze how the problem with errors is different. Completed work is turned in at the end of each class to be graded and returned the following class. If completed work has many errors, I will spend some one-on-one instruction time with the student.

With the in-class feedback and consequences that Tom will be receiving, the error correction procedures are being moved to a more immediate process.

Results What "data-based" decisions did I make (did I change the learner's placement in the curriculum; continue or change antecedents or consequences; change the learner's objective; and so on)?

Based on Tom's situation at the beginning of this project, I decided to make a change in the antecedents, and with the cooperation of Tom's parents, in the consequences. Although Tom has not responded well to one-on-one assistance in the past, he responded very well to brief teacher-student contact, as well as having his work graded as he was working on it. The additional feedback let him know that he was understanding the concept and doing the questions correctly. If he had difficulties with the work or completed some questions incorrectly, he was more likely to ask for assistance. Tom also responded positively to the increased opportunities to show mastery of the skills on the "quick quizzes". Previously, Tom had not displayed either positive or negative attitudes towards quizzes and test, they were simply something he had to do. With the addition of the "quick quizzes", he suddenly appears to be motivated by the grades, finishing the quizzes quickly and requesting grading immediately.

My Evidence of Reflective Teaching

My evidence of "reflective teaching" has been the identification of a learner experiencing difficulties within my classroom and the development and implementation of a plan to address those difficulties. By describing possible antecedents and consequences that reinforced the original behavior or didn't focus on the target behavior, I was able to identify alternate teaching strategies (antecedents, consequences, and error correction) that I could use to assist the student work toward the target behavior within my classroom. Through active monitoring, I was able to determine whether the change in strategy was working or needed further changes. Fortunately, the group of strategies initially implemented produced a change in the behavior of the learner toward the academic and target behaviors. Further strategies beyond the scope of this project will be required to generalize the prompt arrival time and increased time-on-task behaviors addressed.

Summary of CAR/DBI Results

With the goal of improving on-time arrivals, time-on-task and the specific academic behavior of operations with fractions, antecedents and consequences were adjusted so that more frequent, targeted feedback was provided for "Tom". In addition to the feedback at the school, a daily "checklist" for on-time arrivals and time-on-task was also faxed home for the purpose of providing rewards / consequences. The total combination of increase feedback has been a success. Tom arrives to class on

time in 4+ days out of 5 and consistently scores in the average or better than average range for daily effort and participation reflecting improved time-on-task. Additionally, Tom is scoring 80% or greater accuracy on "quick quizzes" testing mastery of operations with fractions.

Recommendations and Advice

In reviewing the data collected for this project, I would recommend the continued use of the antecendents and consequences that were implemented for the completion of this project. In particular, more frequent "check-ins" for understanding and encouragement, as well as increased opportunities to show mastery in the form of short "quick quizzes", appeared to have the most positive effects for the student.

Overall Reflection

I felt that the project was a success. Not only did the student improve academically with the changed implemented, his behavior also changed. "Tom" now arrives on time to class, and is focused on his work on at least 4 out of 5 days. By providing a system of feedback that provided a visual representation of his progress on his behavior, Tom was better able to monitor his own behavior. With respect to the academic goals, the short "quick quizzes" seemed to have the most impact on "Tom's" attitude and motivation to learn. He appeared to take some degree of pride in the grade he received on his quizzes, and because he was receiving this type of feedback every 2-3 days, he appeared to be more focused on his work in order to get to the next quiz. With respect to my progress and the design of an effective instructional management system, I felt that project was useful, well designed and implemented. While I was summarizing my data, I felt that a couple of weeks of student behavior data prior to the changes would have made an interesting contrast.

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*This project was submitted in partial fulfillment of the requirements for EDEX639, under the supervision of Toni Hood, Special Education Assistant Professor at CSUSM, and Ann Nevin, Special Education Professor at ASU West, during Spring 2002. Protect the intellectual property rights of the author by using appropriate citation techniques when referring or excerpting aspects of this project.

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CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Karen Levin*

Description of TeacherI taught hearing impaired middle school students in Michigan in the early 1970's. When my daughter was born we moved to California. I stopped teaching to raise my children. I went back to school in 1992 and got my fifth year. I didn't go back into teaching because my son had some health problems. I worked as an instructional aide for many years. Then I got a job as a Title I teacher for two years. Four years ago I was hired in San Marcos to be a teacher who provides Resource Specialist services. I went back to school and got my Level I credential to teach students with mild/moderate special needs. I switched over to teaching students in special day classes and have been doing that for the last three years. I am taking my last three classes for my Level II credential in California this semester. I feel I'm a good teacher and I continue to learn as I teach. I'm flexible and care very much about my students and want them to succeed both academically and socially. I try to use all learning styles in my lessons to help all my students be more successful. It is my goal to help all my students make progress while they are with me and be the best that they can be.

Description of the Setting and Ranges of ages/grade levels of the children I typically teach I teach middle school seventh and eighth graders in a special day class. They are between 12 and 14 years old. I teach at a Middle School in San Marcos. I have 13 students. Eleven of the thirteen are Hispanic and two are Caucasian. All my students can speak English. Nine of my students' parents can speak Spanish and no English. Most of my students come from low income families.

Curriculum I teach the academic classes -- Language Arts, Math, Science, and History. I try to use as many learning styles as I can in a lesson. We do a lot of oral reading, graphic organizers, experiments, storyboards, cooperative grouping, and manipulatives. I use books that are grade appropriate for my students or I make up lessons when a book is not available. I try to have the students participate actively in the learning process.

Collaborators I have two wonderful paraprofessional who work with me for half of the day. They are both great and work well with the students and me. We are a team who's main goal is to help the students be successful. I work with the school psychologist not only for three year evaluations, but whenever there is a concern regarding a student -- academically or socially. She will give me suggestions and we are able to talk together to see what is best for the student. I work with regular education teachers, as my students go out for Physical Education. and Expo classes. I keep in touch with the teachers making sure the students are succeeding in their classes. I help with projects that are due, tests, provide modifications or accomodations if necessary. I am there to support the teacher and be of assistance to the students at all times. I work with other special education teachers. I am the head of the Special Education Department and I'm there to help them at all times. Sometimes they just need someone to talk to and other times they need speicfic help. I help the new teachers with paperwork, materials, and support. I work with all of my students' parents. I get an interpreter to help with my Spanish speaking parents. I make sure they understand the information being presented. I let them know that they can contact me any time they have a concern (there is someone on campus that speaks Spanish

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to help at all times). I communicate with them when I need their help with their children or just to let them know that things are going well.

My Philosophy My philosophy of education is that all children can learn and should be given the opportunity to learn, regardless of their disabilities, race, religion, gender, or socioeconomic status. I believe that as a teacher I need to have high expectations for all my students and guide them to reach their full potentials. These expectations need to be conveyed to the students so they can strive to meet these goals. I use the students' background and experiences to make learning relevant and, thus, help them be more successful. There are also many things that I do in the classroom to make learning a successful experience for my students. The environment of the classroom must be one that is safe so my students are willing to take risks. There must be a discipline plan in place so that nothing interferes with learning.

Larrivee stated that when there is efficient use of time there is more learning going on. I not only have classroom rules posted, but I use a time sheet with my students. They get paid minimum wage each period they are with me. They can earn bonuses and can also lose money for such things as negative behavior, not participating, not having supplies, etc. They get a paycheck on Mondays and can use their money to buy things from our classroom store. A few of my students are also on behavior contracts that go home everyday so their parents. As Lovitt states in his book, parents can help by "appropriate at home reward or punishment," which helps the teacher and has the parents more involved in the "educational process." (318) I also encourage them to think about their successes intrinsically and to look at their failures are a learning experience. I must also be prepared so that the time is use efficiently, thus, eliminating most negative behaviors.

As Thousand and Villa (1990) stated data-based strategies can be used to adapt curriculum and instruction for meeting the needs of all students, including those with intensive challenges. I meet the needs of my students in many different ways. I try to keep the students actively involved during the class because the more involved a student is the more the student learns. I use all learning styles because everyone learns differently. By using as many learning styles as possible during a lesson I am allowing all students to process the information in a modality that is appropriate for them. I make sure that all my students' needs are being meet when I pretest before a lesson, adjust as I am teaching, posttest after the unit is finished, and re-teach to those students who need additional practice. I use many of Sagor's and Lovitt's suggestions for collecting data such as students' work, journals, and tests to help me assess whether the students are understanding the material and where I need to adjust the lessons. I make sure I am flexible, use modeling, and slow down and simplify whenever necessary. I use appropriate levels so the students can be success. I also break down the goals into small steps so the students can be successful and hunger for more learning. I use brainstorming and graphic organizers to help them get their thoughts and information organized. I use a great deal of positive reinforcement to let the students know when they are doing a good job and working to the best of their abilities. I not only use verbal feedback, but I also use nonverbal cues to help them stay on task and to let them know that I am proud of them. I do use cooperative and partner learning when it is appropriate not only for the learning experience, but also for the social interaction.

Teaching students with disabilities means being part of a team whose main goal is the success of the student. Sagor's five steps to collaborative research (problem formulation, data collection, data analysis, reporting the results, and action planning) can be and are applied during the IEP team process. The input from all of the members is collected and used for the final goals and objectives of the student. It is my job to make sure that all of the people on the team communicate with each other and focus on what is best for the student. This team consists of the special education teacher (me), regular education teachers, psychologists, counselor, administrators, other appropriate school and outside personnel, the parents, and

the student if appropriate. It is important to let the parents know that their input is very important and that they are vital to the success of their child. If it is appropriate, the student should also have an active role in his/her education because he/she is the one who will have to fulfill the goals that are set up by the team.

Teaching is not an easy job. There are many elements that are beyond our control, but there are also many elements that we can control and change. A kind word, a smile, showing the student that he/she can do the task and then another, are only a few of the things within the teacher's control. Seeing the smile on the student's face when he/she feels success makes teaching very gratifying. I believe a teacher must be totally committed to helping the students achieve their goals. The end goal in education is to help make all students productive citizens in society and it is the teacher's goal to do whatever it takes to help the students achieve this final goal.

My Atypical Learners and Their Instructional Needs All of my students, thirteen, are "typical" atypical learners. They have all been diagnosed with learning disabilities. Most, but not all, of them have a big discrepancy between their IQ and their academic achievement. All of my students with learning disabilities have difficulty with reading skills and math skills. The degree of difficulty varies from second grade to fourth grade in reading and fourth to fifth grade in math. All of my students are in seventh or eighth grade so they are anywhere from six to three years behind in these areas. Many of them have trouble staying focused and most of they lack learning skill strategies. A few of them have poor social skills as well. Adding to ten of my students difficulties are that they are second language learners. They all speak English, but their parents only speak Spanish. One of my students has emotional issues. He was diagnosed with Attention Deficit Disorder and is medicated with Ritalin.

*Instructional Need*s When setting up my instruction, no matter what the subject, I always consider my students' needs. I slow down the pace, use repetition, and simplify when the students are confused or just don't understand a concept. I try to use examples that they can relate to when explaining a concept they don't understand. I use grade appropriate materials that stretch
them, but doesn't frustrate them. I try to have all the students actively participate, but there are a few that participate very little. In these cases I try to draw them out and ask them questions that I know they will have answers for.

I have a behavior plan in place that allows them to take responsibility for their actions. I also have a few students on individualized daily behavior contracts to improve their conduct. I use cooperative grouping when appropriate.

Cooperative learning groups are good teaching/learning procedures because the students learn from each other and they learn to work with others, which is a social skill that many of them need.

I also use graphic organizers, visuals when possible, and hands on activities when appropriate. I have the counselor come in once a week and do a mini SAFE group session with all my students to help them work on their social skills as well. I'm always collecting data, looking to see how well things are going, and adjusting my lessons to accommodate my students' needs.

I work on self-esteem as many of my students have low self-esteem and need to know that they can do many things and feel good about themselves. I use a lot of positive reinforcement and positive self-talk. I believe as explained by Nevin, Thousand, & Hood (EDEX639, Topic 3 Lecture) that says we as teacher must "recognize individual strengths of students and de-emphasize what they can not do." I always have high, yet, realistic expectations for all my students and let them know that I believe in them.

Learners for This CAR/DBI Project I will develop a DBI system for a group of my students, seventh and eighth graders, who have math together. There are five students, three girls and two boys, in the group. Five of the six are Hispanic and one is white. All of them speak English and are able to communicate without any problems. They all have learning difficulties and a few of them have difficulty staying focused. One of their biggest problems is that they have short-term memory problems and at times it is difficult for them to remember concepts that they knew the day before. They started out the school year at a fourth grade level and are now working at a mid-fourth grade level.

Academic Behavior(s) to Improve I would like to work on helping them find strategies that work for them while doing math. Many of them rush through their work so I want them to slow down and work on getting the assignment done correctly. I want to help them stay focused and on task so their assignments are finished on time and with at least 90% accuracy. I want them to reach their IEP goal of getting to the end of fourth grade by their next IEP. This would give them more success and, thus, more self confidence that they can do the math and do it well.

Relation to IEP Goals and Objectives In all of their IEPs, there is a goal to improve their math skill one whole year, which would be to the end of fourth and the beginning fifth grade level. The California standards say that they should be able to compute math problems using addition, subtraction, multiplication, and division at the fourth grade level. Using multiple digits in multiplication and single digit into multiple digit division. Also being able to use variables to find answers to equations, which is algebra.

System to Monitor Progress I have chosen to monitor my math group which consists of five students. They are all in the same math book and on the same lesson. I do have a grade sheet for each student and they also have a grade sheet that they keep in their notebooks. They lack confidence in math and tend to go too fast and get many errors. When they go back and redo the problems they missed the first time, they can usually achieve 90% accuracy. I am going to add to this grade sheet a few more elements. I feel this will help the students visually see their progress. They are going to self-monitor by plotting their grades on a graph so they can see their progress after each lesson. The ultimate goal will be to keep their grades above the 95%. I will also be looking at their papers to see if they are all missing the same concept (an error analysis procedure).

If they are missing the same concepts instead of helping each student, I will go back and re-teach the concept to the entire group. Once I see that a concept is difficult, we will do some fun games for the first five minutes each day to help them remember the concept.

I will keep track of the data, by seeing if the concepts in the lessons are being done correctly, on these concepts to see if they improve with this extra practice.

ABCs Analysis I have five learners in my math group that I am monitoring and collecting data on, but they all have similar issues. The "B" or behavior is similar in all my students. They have difficulties staying focused and for some of them this means that they don't attend to the instruction and, thus, have problems doing the new concepts. They also are easily frustrated and tend to work too quickly on their math, which leads to many unnecessary errors. There are times when they will bother each other and disrupt the group as a whole. Two of my students will just sit there and not ask for help unless I ask them if they are doing okay. The antecedents, "A," can be frustration on the part of the students because math is not a strength for them. Also, we are at a kidney shaped table and at times being near another person can be a distraction, which can cause them to bother each other. When they get confused about a concept there are times that they tune out, they have that far away look, instead of asking for more clarification. The consequences,"C," are the end results of their behaviors. The consequences are that they are unable

to complete problems that were just explained to them, they get errors on their papers that could have been avoided if they would just slow down, they get a deduction on their time cards, or in trouble for their behavior. I do use the error-correction procedure continually throughout the entire lesson and afterwards when they are working individually on their assignments. I correct their papers upon completion and allow them to try to correct their errors on their own first, self-management. I verbally praise them and let them know they are doing a good job, but I'm also honest with them when they make careless mistakes that they need to slow down. When they self-correct I also let them know that I knew they could do the work and I help them, one on one with concepts that confuse them.

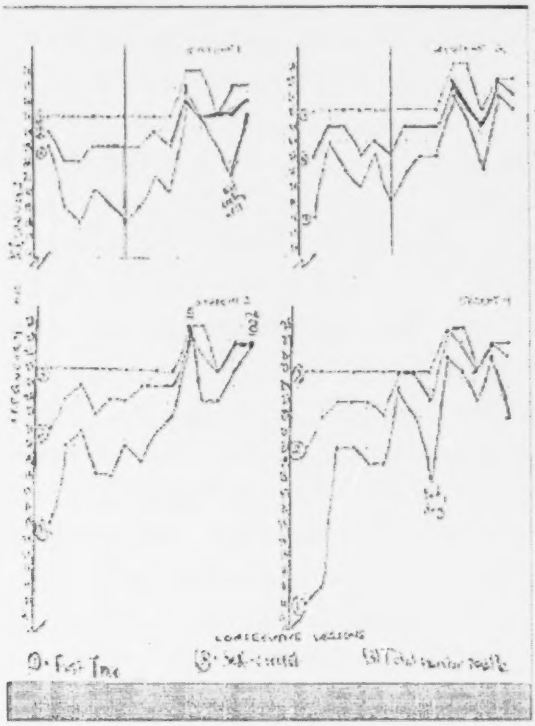
There are few antecedents that I have changed in the environment to help the students be more successful. I have changed their seats and I allow them to go back to their own desks to work after the lesson and instructions have been presented. I try to involve all of the students in the lesson to keep them focused and on task. They know that I will call on all of them sometime during the lesson and I'm always asking them for answers and to restate the concept back to me. To alleviate their frustration I try to make sure they understand what is expected of them and remind them while they are working to go slow and check their answers before handing in their papers.

Many of the consequences are natural consequences that happen when they don't pay attention to the instruction or go too fast, which is they get many problems wrong or they are unable to do problems. They are usually able to self-correct many of the problems on their own once I have corrected their papers. I very seldom have a problem with inappropriate behavior. I feel very comfortable with the consequences that are already in place.

I use a great deal of verbal praise in my classes. I have high expectations for my students and they know that I believe in them. I correct their papers upon completion and allow them to self-correct their papers. I always let them know that I knew they could correct many of the errors on their own. If they are unable to correct a problem on their own, then I help them one on one so they can work through the steps and see how to solve the problem. Since starting the CAR/DBI, I have been teaching some of the concepts that many of them were confused about in mini-lessons, instead of one on one, so we can interact together and help each other understand the concept better. Hopefully this extra practice will lead to more success for the students.

I'm also charting their progress and letting them see how they do the first time on a lesson and how they do once they have self-corrected. Once they see that they could have gotten a better score if they had done the work correctly the first time, I'm hoping this will give them the incentive to slow down and get them right the first time. It is my goal to help the students be more successful in math, feel better about themselves, and take what they have learned and apply it to other situations in their lives.

Results of Making Data Based Decisions It was my goal to have my students improve and be more successful in math. There were a few antecedents that I changed to help them meet this goal. During the lesson I had each student do a problem to show they understood the concept before they worked on it independently. The students didn't know whom I would call on so they had to be attentive at all times in case they were the next person to be called on. I taught mini lessons on concepts that all of them were having difficulty with so they could help each other and interact as a group. I did allow them to move to their own space once the lesson was over.



I also added the graphing, which allowed them to visually see how they were doing.

The consequences were natural consequences and I didn't change any of them. As they stayed focus and slowed down as they were working their scores went up quite a bit. They were using self-management skills and the graphs allowed them to see their progress, which in turn built up their self-esteem.

I continued to use positive feedback and let them know that I knew they could do better if they would slow down and check their work before handing it in. When they are confused about a problem I ask them questions and have them tell me the steps to take to solve the problem, which continues to help them process the information. I always allow them to go back once I have corrected their papers and redo the problems that they got wrong the first time.

The students are making progress, which means the strategies being used are working. The method that I'm using to track their progress, graphing, visually shows both the students and me how they are doing on each lesson. Thus, between the graphing and direct observation in the classroom situation I'm getting accurate feedback. Lovitt's three basic features (direct, important, and frequent) are all being met. I agree with Lovitt that the students are learning self-management, which is allowing them to take responsibility for their own success. This self-management is also helping the students build their self-esteem and have more control of their lives (Lovitt). Sagor says that once the data has been collected and analyzed a plan must be put into action. I feel that my DBI has accomplished this and the end results have been very successful.

Recommendations and Advice I will continue to use the above strategies as they have proven to be successful and are helping the students succeed. Their work is more consistent and their scores on the first try have risen. They have slowed down and are checking their work before they hand it in, which is cutting down on their errors. When they go back and self-correct they are able to do so with much more accuracy and are getting scores in the high ninety's to a hundred percent. They have more control over their learning and have higher expectations for themselves. They are excited about their progress and ask for further explanation during lessons.

It is my advice to anyone designing an educational intervention for a special education student should also do an ABC analysis before she begins to make changes. By doing the ABC analysis first she can see more clearly what some of the problems are and be in a better position to design strategies that will work. Once new strategies are implemented it is very important that the teacher continue to monitor, adjust, and even change if necessary any of the strategies that have been implemented. The goal of the teacher is to help the students be successful. It is the goal of the DBI to keep the teacher focused on what is really happening with the students so she can make necessary adjustments if needed. The teacher must also reflect on her own error analysis procedure to make sure she is truly supporting the students in a positive and encouraging manner.

Reflections My evidence of "reflective teaching" is the success of my students. My students are doing

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much more consist work and their scores have risen to eighty percent or higher. They have taken more control over their learning and have higher expectations for themselves. They have slowed down as they are working and their work has become more accurate. Instead of just handing me their paper when they are finished they take time to check their work to see if they can catch any errors before they hand it in. They are excited about their progress and ask for further explanation during lessons.

Although I have used a DBI approach before, I had never done so in a very detailed way. I have seen the positive results of putting the data down in written form and I will continue to use this process in the future. The data has helped me to focus more on what was actually happening instead of what I thought was happening. The information helped me to adjust my lessons and my strategies to help the students be more successful. It helped me to see the ABC's and E and how important they are in understanding the students' behavior and how the antecedents and consequences impact their work. All of this information helped me be more effective as a teacher and, thus, helped my students be more successful in reaching their goals.

The Collaborative Action Research process that I used to complete my Data Based Instruction project was based on
Sagor's five-step process. This process allowed me to look at what was really happening, not what I thought was
happening during my math class (Lovitt). The five-steps kept me focused and let me analyze what I needed to do to
help my students be more successful.

- Formulation of the problem was the first step. I needed to identify the problems that my students were having during math. I did an ABC analysis so I could see exactly what was happening during math. I looked at their behaviors, which reaffirmed they all were having trouble staying focused, staying on task, and thus they were having difficulties with new concepts. They also were rushing through their work and getting frustrated, which caused many unnecessary mistakes. I looked at the antecedents, which revealed frustration, distraction, bothering others, and tuning out. I then looked at the consequences of their behavior and found that they were unable to complete problems that were just explained to them, they made careless errors because they rushed through their work, and some got in trouble due to their behavior.
- Next I collected data to see when these problems were arising. I also had data on how well they did the first time on a lesson and how many times it took for them to correct any errors they had made. I looked to see if all the students were having difficulties on the same problems in the lessons. I also watched to see how fast they completed each lesson and how many careless errors they had made.
- I then analyzed the data, which is step three, to see if the data substantiated the formulation of the problems from step one. I looked at the results of the data collecting and analysis, step four, and shared them with my two aides. We discussed what we saw and brainstormed some things that could be done to help the students be more successful in math.
- I then made an action plan based on the results of the data. During instruction I randomly called on students to answer problem either verbally or by coming to the board. I made sure every student had to answer a problem on the new concept and at times I had them use white boards to write down their answers. I allowed them to move to a different seat once the instruction was over so they could have their own space and others wouldn't bother them. I already had a grade sheet that each student kept to see their grades, but I added a graph so they could get a better visual view of how they were doing. An added bonus was the students learned how to plot points on a graph. I did short mini lessons on concepts that they were all having difficulty with as well as one on one when necessary. I continued to use positive feedback and have high expectations for all of my

students.

The results of the CAR/DBI process were very satisfying. My students started to have more success the first time they did the lessons. They felt good about themselves and were excited to go on to the next lesson. They gained self-confidence in a subject that is very hard for them. Their work is more consistent and they are learning to self-manage themselves (Lovitt), which is a very important skill to have to be successful in the future. The entire process allowed me to truly see what was working and what wasn't working. It made me more focused and I was able to make adjustments to fit the needs of my students. Learning is a never-ending journey and both my students and I learned a great deal from this CAR/DBI project.

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CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Linda Tyler*

Description of Teacher My educational credentials include a BS in Education, more specifically Rehabilitation Counseling and an MS in Education also Rehabilition counseling with an emphasis on Vocational Evaluation. I completed my Multiple Subject Credential in December of 1998 and my Level One Special Education Credential in May of 2000. I will be completing the Level Two Credential this comping May. As a teacher I am in constant motion whether teaching, assessing or just getting other parts of the job done. I have a high level of energy which I hope shows in my teaching. I rarely sit at my desk unless it is to work on the computer. I have to admit to being one to often "wing it" though I do keep a good lesson plan book. One of the advantages of thinking on my feet is the ability to adapt a lesson at a moments notice if it just is not working. The math course I teach is unfortunately mostly direct instruction but the students do get a lot of time for practice and positive reinforcement. In my other classes I try to leave the format open (but structured) so students can work with each other. Most of the groups I teach are small in number so there is plenty of time for interaction among the groups. I am willing to go the extra distance for any child who needs some extra instruction whether or not they are identified as special education or not. Being in a small district means you wear many hats. Last summer I was driving the school van to transport of the students who was in a wheel chair at that time. I am also very well organized which is a necessity when you have the age range I do and no one to really share much of the job with. I have gotten good at delegating and have found this helps me do my job better. Last of all I really enjoy the kids and I think I am making a difference in how they view learning. It has been enjoyable to teach math, a subject that has not been my strength. The students know that often I am learning with them as the approach is very different than from the way I was taught. There are students in my class before school, at breaks, lunch and after school. Often I shoo them out so I can go home or just have a quiet minute to think.

Ranges of ages/grade levels of the children . There is nothing typical about the ages/grades that I teach. Since I teach at one school district, the range is pre-kindergarten through 8th grade. My typical day looks like this: Math for 7th and 8th graders. Ten in the class. (1 hour each day). English/Reading or Writing for 6th, 7th and 8th graders in a block that is part of a language arts rotation (2 hours each day) Phonics and sight word skills to two first graders (1/2 hour each day) Language arts support to one sixth grader (1/2 hour each day) Social Studies Support to 2 8th graders (1/2 hour each day). On some days I am doing more assessing than teaching and an instructional assistant takes over my teaching load.

Description of the ethnic and linguistic diversity and socio-economic status My school is located in a rural setting, at least rural for San Diego County. This year we are in a brand new school located just north of the San Diego Wild Animal Park. We are located near a new housing development and a golf course. Prior to this year, we were in the San Pasqual Valley about one mile east of the Wild Animal Park. This also was very beautiful. I do not think many teachers in San Diego County have cows that come up to their back windows or on the school playground. Then there is the wild turkey who stands in the road every morning greeting all of the cars! We have 511 students currently enrolled in the school, grades K-8. Aproximately 20% are hispanic. Many of these hispanic students have parents who work in

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agriculture in the San Pasqual Valley. Often the students are the first generation to attend school at all. Conversely we have the rest of the student population who live in the new development. These students have a much different standard of living with most of their parents being white collar workers. This creates a very diverse population. It is not unusual for our hispanic students to start kindergarten speaking no English. We also have students who start in other grades who come to our school not speaking English.

Curriculum All of the students I teach are identified as eligible to receive special education in a Resource Specialist Program or At-Risk students. We are considered an integrated learning lab so we are not limited to just special education students but work with any child who needs some extra attention. The math class I teach uses the same curriculum as other 7th and 8th graders are in. The difference is that I have a group of 10 students who were struggling (about 1/2 are on IEP's) and the other class has 25 students. We have a curricular adaptation that is so well done that most of the general education teachers use it for students in their classes who need some extra assistance. For writing, with some of the students who need a lot of practice I use the SRA Reasoning and Writing, the Green Book. I use the same grammar book with 6th and 7th graders as the general education teachers are using. It is called Easy Grammar and is used school wide from grades 3 to 7.

We use the Rebecca Sitton Spelling Program which is based on high frequency word usage. Depending on the spellinglevels of the student, we can customize the level of the program to the student.

For reading I use several different programs. We have the SRA program for the younger students and a series of short stories for the middle school age students. We try to do literature units with the same books used in the general education classrooms or choose books at the reading levels of the student.

Like any special education teacher, I beg borrow and steal ideas from all of the teachers to incorporate in my teaching. I am very fortunate to have a variety of curriculum to choose from.

People with whom I typically collaborate (e.g., paraprofessionals, school psychologists, other teachers, parents, advocates, etc.

My Collaborators Besides myself, we have a part time Resource Specialist who is on main campus about 3 hours a day and on the satellite campus the rest of the morning. I have two full time instructional assistants who are wonderful. Our psychologist is provided by the county and he is on campus about 1 day per week. We have a new speech therapist who just started and is there full time. In addition, the reading specialist is part of the "Learning Center". We also have a former superintendent of our school district who works filling in where needed whether it be special education or ESL help. She is 80+ years young and is a very valuable asset. Since we are small, we typically eat together and use that time to discuss students that might need some assistance. I have a few "favorite" general education teachers that I go to when I need to discuss and get ideas about instructional techniques.

Philosophy I would like to start this section with my general philosophy of education and then relate it to instructional practice. I believe that students should be taught in the least restrictive environment for that student. They have a right to be taught by qualified teachers who have knowledge of the best educational practices. Staff needs to be caring and concerned about the child. Students need and deserve proper materials including textbooks and supplies. Finally, school is a partnership between the child, the teacher and parents.

With that in mind, I consciously use many effective instructional practices. I incorporated the following in my classroom; positive reinforcement, cues and feedback, reading training, personalized instruction,

adaptive instruction, behavior management and direct instruction. Positive reinforcement comes in the form of oral comments or written notes both on assignments students have turned in and notes mailed home to parents every other week. Not only does this let the parent know how their child is doing but it gives me an opportunity to comment on their child's progress. In addition, I hold mini conferences at least twice a quarter to discuss grades and progress with the child. With parents as partners, not only is my instructional time well pent but also the parents know what they need to do at home in order to have their child be successful. My first period math class is an example of adaptive, small group instruction. I am using and following the same curriculum as the general education teacher teaching this course. The difference is the number of students we each have. I have 10; he has 25. I have the students who were struggling with math; not all are on IEPs. By having this small group instruction time, I can better answer questions, check for understanding and adapt what I am teaching. Students are sitting in a semi circle in front of me. I have good access to the entire group and each can easily see the board.

We use white boards to publically work problems so it becomes apparent who is struggling with a concept. This gives immediate feedback to the student. They actually ask for more practice problems once they master a concept. This also holds the attention of the three students with ADHD.

The rest of the day students rotate at different times between general education staff and resource room staff based on their educational needs. This allows students to work on the skills they need help on with others who need help on the same skills. Again because we are an integrated learning center, not all of the students are on IEP's. We try not to be in conflict with the general education classes and set up our classes to coincide with theirs. I do have enough materials to provide the individual instruction the student needs. At any one time, in addition to the regular educational curriculum, students are working in reading materials at their level, are involved in computer based reading instruction or are working on individual spelling lists.

I realize that I have a very specialized setting. Our special education population is small and limited to students with specific learning disabilities, speech and language disorders and some behavior problems. This makes my management different than if I had students with multiple disabilities.

Description of Typical Atypical Learners in My Class The students in my classroom tend to fall into three of the categories. Approximately 70% of the Resource students are also second language learners, a disproportionate number when you look at the caseload as a whole. As I reviewed the criteria for second language learners, I feel that some of the students should not have been placed in Resource. While some of them do not express themselves well in either Spanish or English, others do very well in their primary language which tells me that they are still in the language acquisition process and do not have learning disabilities. They also get along very well with their peers especially when they can speak in their primary language. Due to the nature of the ESL programs that have been in place, some of the students had bi-lingual instruction in grades K-2 but this did not include teaching them to read in spanish. Hence, while the second language students speak two languages, they do not read or write in Spanish. The characteristics of this group then are they respond to controlled vocabulary and benefit from vocabulary development programs, they respond from individualized reading instruction and benefit from individualized instruction for grammar and sentence syntax. Because of these needs, they do well with small group instruction that works on the areas they are trying to develop. Vocabulary development has been the area that seems to help the most.

My second group would be those whose characteristics would be students with Learning Disabilities. This also includes the first group but also those students who are not second language learners. The characterists of students in this group includes those who have a lack of focus and are hyperactive. Most of the students in this group have a hard time staying on tasks, completing assignments and applying any kind of strategies to their academic acquisition. Instructionally this group is one of the most difficult. I

do a lot of checking for understanding, making sure homework assignment books are filled out and filled out correctly, monitoring of assignments to make sure they are complete and also helping students develop management skills both for time and materials. This type of student often gets lost in a class of 25-30 students and by doing the above as well as some small group instruction, students are generally more successful in managing their disability.

The third group would be students with emotional challenges. This year there is only one student who really fits into this category. His needs are unique.

Introducing Jes Jes is very bright and has come along way toward management of behaviors. He is distractable, and hyperactive and can often exhibit self destructive behaviors. He needs immediate reinforcement in the kindest way possible for him to work and stay focused. Still, I never know how he is going to be when he walks into my class in the morning. Instructionally he is wonderful if he understands an assignment. What I have learned is to move on with the group if he does not and have him come in for some individual time where we can work together. Also as writing is very difficult for him, we have modified assignments and the way he does assignments.

The occupational therapist is also working with him to better address his learning needs. You will be hearing more about Jes as he will be the focus of my data based instruction project. There are several academic behaviors that I would like to change with Jesse. Jesse is an unusually bright young man with an emotional as well as a learning disability. He has a quirky sense of humor (one that matches mine) and can be the class clown. I think this is one way that he deals with his learning disability; making others laught at him.

I decided to work on his hatred and therefore refusal to do written work. When confronted with written work it is not unusual for Jesse to throw papers, break his pencil or use it so hard on the paper that it rips. Getting him to produce any written work is next to impossible. What I wanted Jesse to do was show pride in what he could do and not worry about the length so much as the mechanics of writing. I have had an opportunity to observe Jesse over a 3 year period.

IEP Goals and California State StandardsI knew that the demands of 7th grade writing would be difficult. The IEP team decided to have him try the regular English class before making any accomodations. Jesse does have writing goals in his IEP that are linked to state standards for the 4th grade leve. We allowed him to tape lectures but still at least try to outline. He was also allowed to do some of the written work at home. This was not successful so he was placed in small group within the Resource Specialist Program classroom. Small group for him means working with one other student. He rotates between two different teachers and has some independent reading time. Jesse thrives on attention so small group has improved his academic behaviors.

We write short paragraphs that we have outlined and brainstormed. He is able to use a picture prompt and expectations are clearly outlined.

I devised a checklist for Jesse to use as he writes his various drafts. One measure is the checklist and the amount of revisions that he needs. The other measure is the length and quality of his work. The longer paper he is able to write without complaining is also a measure >of his willingness to tackle written work. Writing pieces are assigned on a weekly basis. I have samples of all of his writing and they are dated. I can see the progress in his writing over a period of time by looking at the work he has completed.

Academic Behavior to be Changed We are working on sentence and paragraph writing. One of his goals is: By annual review, Jess will write a minimum of 3, 5 sentence paragraphs in response to something he has read. The Objectives are: To use proper punctuation, capitalization and sentence formation on 4/5 assignments as measured by the writing samples. To have the assignment legible on 4/5 assignments as measured by the writing sample. Goal: By annual review, when given a modified writing assignment, Jess will complete the assignment without crumbling papers, breaking pencils, or pushing materials off his desk, 90% of the time. Objectives: These were written as benchmarks with 70%, 80% and 90% compliance. Not only do these goals reflect academic performance but also appropriate behavior to meet these goals.

Linking to the State Standards The state standards for 7th graders in regards to writing are:
7.1.2 Supporting all statements and claims with anecdotes, descriptions, facts and statistics...
7.1.3 Using strategies of note taking, outlining, and summarizing to impose structure on composition drafts.
7.1.7 Revise writing to improve organization and word choice after checking the logic of the ideas and the precision of the vocabulary

There are also standards that address grammar, punctuation and capitalization. The seventh goals of grammar, punctuation and capitalization are appropriate for Jesse. What he is not ready for at this time is to write a lengthy paper of any kind.

The IEP goals that were written are in line with how a fourth grader would write. In this case the relevant state standard is as follows:

Organization and focus
4.1.2 Create multiple paragraph compositions
a. Provide an introductory paragraph
b. Establish and suport a central idea with a topic sentence at or near the beginning of the first paragraph

c. Include supporting paragraphs with simple facts, details, and explanations
d. Conclude with a paragraph that summarizes the points
e. Use correct indentation

System to Monitor Jesse's Progress

The sample pieces that the student produces are evidence of his progress toward his instructional objectives in writing. Right now Jes is working with pictures that he has to describe. When he completes a writing assignment the picture is stapled to what he is written. We also go back and discuss how he could have made improved on this assignment. Last week I tried an alternate method. After he had written the paragraphs, we sat down with a tape recorder and went over each sentence he had written discussing how he could have made them more interesting. He was able to listen to himself and then "re-write" or restate the assignment.

I think that the data could be displayed in several ways. I like the idea of attaching a checklist to each assignment that goes along with the IEP goals. I am envisioning a paper with the writing objectives going down in column form. I want a grid though so when he resubmits a paper we can compare it to previous writings. (I have the picture in my head of what it should look like but am not doing a very good job explaining it.) A checklist might include: Was proper punctuation used? Capitalization? Does each sentence have 7 words? Each paragraph at least 5 sentences? How many attempts were necessary to do the paragraphs. Did the student crumble paper if frustrated)? Introductory paragraph? Topic

sentence? Facts, details and explanations? Concluding paragraph?

With the checklist attached to the writing, Jes can also identify the areas that still need work. As he revises and reworks the paper, we can go back to the checklist and see where improvements were made. When there are no more areas to correct, then the paper is a polished piece. This information could then be graphed in several ways. How many attempts to get a completed piece of work, length of paragraph, length of sentences, spelling errors, etc. I envision the checklists as the regular monitoring system and the graph as a way to later tie it in together. I am not sure the graph needs to be kept on a weekly basis. Comparing the checklists will also let me know if it is taking fewer revisions each week and whether my strategy is working for Jes.

Note: In my mind I know what I want to do to monitor his progress and will work on a table probably in excel or word.

Examples of an ABC analysis of Jesse's Interactions The ABCs of DBI are as follows. The B is describing in detail the learner's Behaviors. The A is the antecendent or what occurs before the behavior. The C is the consequences of the behavior.

How can they help design better instruction for the difficult to teach? It is interesting that the ABCs of Data Based Learning are the same as the ABCs of identifying behavior problems ie: the behavior, what the trigger was or the antecedent for the behavior and then the consequences. By analyzing behaviors a student exhibits when a certain subject is presented will allow us to find ways to better teach the student.

For example Jesse, the student I am working with for the CAR/DBI Project, is also in my first period math class. There are some mornings when he comes into class completely wired and is very difficult to teach. Other days he is wonderful, right on task.

The antecedent is that on days he walks to school, he expends some of his energy and can better focus. Needless to say I have requested that he walk to school whenever possible. When he cannot, I have him go walk in the gym before school.

The consequence of his action is evident. When he is too distruptive to be included in class then he has to miss part of his break or come in at lunch to make up the missed work. The good news is that he is starting to realize that it is more beneficial to him to be attending in class and will ask for "time to walk" so he can expend energy. Lovitt (2000), in the chapter on Self Management has a table on predicting consequences.

I am thinking that making up a similar chart or having Jesse make up a chart would be beneficial in teaching him to manage his behaviors. I think all teachers struggle with the best ways to teach those with difficult behaviors. Anticipating what can happen and having worked it out with the student beforehand may make instruction easier.

This morning (3/19/02)is another good example. Jesse said he was tired when he got to school. He said he had walked so if he had to take a nap it was because of that. Needless to say he did not nap but he was pretty calm and focused on instruction. He stayed that way all morning. I agree this is a good example of the ABC's of DBI.

Results Jesse had already had his placement changed from inclusion in a general education setting for English, to small group instruction for the same subject. This decision had been made in the fall when Jesse would throw his glasses, materials etc, when presented with writing assignments. We had tried to

modify the written work in the classroom but that was not enough for him to be successful. Since then he has been working on paragraph writing using picture prompts. Our goal has been to increase the amount of writing he will do and the time on task. Using the data collection sheet with Jesse's written work does not change the antecedent or consequence rather it is designed to change his behavior; more time on task and longer paragraphs. This would relate to his instructional objective. Other modifications have also been attempted to change behavior. When note taking is required in classes, the student is expected to at the least write down the topics with one or two words under each. Then, the teacher either copies her notes or photocopies the notes of another student for Jesse to use.

Reflections on my Teaching As I think about it, I have been making adjustments to the way materials have been presented to the student as the year has progressed. We tried general ed, then a writing book that was not successful (I think I hated it as much as the students). When I reevaluated what Jesse's IEP goals were and what he really needed to learn to do, the instructional design was changed again. If this follows my understanding of DBI, what a good teacher does, is establishes a baseline in a particular area and determines what instructional methods can be used to "raise the bar." This instructional design is based on knowledge of the student, his or her learning style and the objectives you with to accomplish. As the student is learning you re-evaluate your instruction to make sure if it is working. If it is clearly not appropriate then try something else. If success has been limited perhaps a slight modification will make it more successful or add something else to it. If it is working then keep it up. For the purpose of this project I have narrowed what I am doing to Jesse and his writing. There have also been changes for Jesse and his math, Jesse and his reading and Jesse in the general ed classroom. A lot of his instruction has been determined by the collection of data, not so much written as much as observing him and changing what is working and what is not. To broaden this, I have done this with other students also though not to the degree that I have used DBI with Jesse.

Summary of CAR/DBI This week I took a look at all of the data that I collected on Jesse and his writing. In all, there were 10 pieces of work. I would have liked to have had more samples. Because I only see Jesse two days a week for writing, we just did not have enough time to get more done. At any one time, he had a piece he was working on, one that was in revision and one that needed to be finalized. This is a lot for a student who does not like to write. What I set out to do was look at the revision process and see how long it would take him to go through the various steps of the process. What I ended up with was looking at the length of the papers he wrote to determine why there was a change in the length of his papers.

For the baseline story Jesse wrote a short response to a picture prompt that was 38 words in length. It was barely legible.
His second story, also to a picture prompt was 60 words in length and while the penmanship is not great, it can be read.
His third story was 54 words in length and readable.
His fourth story was 73 words in length and readable.
His 5th story was 119 words in length and very neat (for Jesse).
His 6th story was 126 words in length and was hard to read. His 7th story was 142 words in length and readable.

At this point we switched from a picture prompt to a story starter.
The first topic was about a cat stuck in a tree. On this writing he had 83 words and it was readable, a slight decrease.
The next was also from a story starter and he wrote 78 words, it was not very neat.
The last story was his favorite and also from a story starter, he wrote 185 words and this was his most legible work yet. Unfortunately he got mad at the instructional assistant and ripped up the paper. I did get him to tape it back together and he submitted it.

Overall Jesse showed an improvement in legibility by others and also the length of his papers. His teachers are still concerned about his notetaking but he was able to do the quality writing assessment without ripping his paper and turned in a pretty good story. Jesse's writing partner has just moved so we will be working one-one for the remainder of the year. I plan to do more with Handwriting Without Tears to work on his penmanship.

Recommendations and Advice I think that what I originally set out to do was on the right track but was more difficult from a data collection standpoint. To try and plot the number of attempts is a good record keeping system but not good at providing data. What was helpful was to have a folder with all of his work and date each piece as it came in so I could see the progress over time.

My advice for reluctant writers is to start small and see what they want to write about. The picture prompts we used were very basic but we still did brainstorming before each of the initial stories. When you feel your student is making progress it is ok to switch some things, in this case picture prompts to story starters. There may be some downward movement in the process but Jesse likes the story starters better as he can use his imagination and while the writing gives him a theme it is not as guided. I think keeping it simple and looking at different things is helpful. Pick one small thing at a time and then adjust from there.

Overall Reflection on Implementing Effective Teaching Practices and Principles of Collaborative Action Research to Design Effective Instructional Management Systems I think that this was a good introduction into collaborative action research. I do enjoy data and like looking at results. I generalized the process of data collection and analysis to my math group who took the San Diego Math Assessment or SAM. I analysed the problems that were missed compared to what had been covered and what I still had to teach. That was effective in preparing the students for the SAT-9 testing as well as making sure all of the material they needed to move on was covered.

I think my progress with Jesse was good. On one level, he is writing more and it is more legible. On another level he only ripped one paper up and that is a change from ripping up most of his assignments. At lunch today I was talking with one of Jesse's basic education teachers. We both felt that he had made a lot of progress this year. Hopefully the research that was done effected my teaching of Jesse and will continue to drive the kind of instruction he receives

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*This project was submitted in partial fulfillment of the requirements for EDEX639, under the supervision of Toni Hood, Special Education Assistant Professor at CSUSM, and Ann Nevin, Special Education Professor at ASU West, during Spring 2002. Protect the intellectual property rights of the author by using appropriate citation techniques when referring or excerpting aspects of this project.

Collaborative Action Research

CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Michelle Carlson*

Description of Teacher I have a bachelor's degree in Special Education and a degree in Elementary Education as well. I also have a minor in Language Arts. These credentials are from the state of New Mexico and I am currently trying to clear my special education degree for the state of California. After that is completed I would like to continue and also get my masters degree in special education. I am a teacher that teaches from the heart first. What I mean by that is I have my students by into my class by having them participate in group bonding activities. I also have them work together to complete tasks for points as a group. The class quickly learns how successful many minds are compared to working independently. I have them teach each other if one still does not understand after I have done whole group instruction.

Ranges of ages/grade levels of the children I typically teach Ranges of ages/grade levels of the children I typically teach I teach mainly to the ninth grade students however their are sophomore, juniors, and seniors in my classes as well. The topic I teach is pre algebra. A typical class was designed for the resource students who needed a little more base prior to going into the general education pre algebra level course. However, now they have not only done away with pre algebra at the high school level, they are soon to get rid of the algebra first year and start the general education students at the ninth grade in geometry. So therefore I am now seeing we have to keep those students in house for their algebra as well. Because as a department we are having more in house classes to teach I find us cutting classes out and therefore I have all levels of students who receive 'special day class' services (due to the severity of their disabilities, such as moderate-to-severe mental retardation) as well as students with behavior disorders in my classes.

Description of the Setting My school is located in a suburb of San Diego so that would make us a rural school. Most of our students I would say in general are very well off economically. However, surprisingly, many of the students in my classes are very poor and struggle to remain living in the area gain a good education. I have a wide range of students from ethnic backgrounds. They range from Americans to Hispanics, to Asian, to African American. However, predominantly they are Caucasian students. All of my students speak English yet, one of my students is limited English proficient.

Curriculum I teach the AGS Pre Algebra curriculum with added information from the district as well as general education teachers that I found to be missing in the book and have extreme importance to their success in future higher levels of math. I also have them connect their new math skills after each chapter to a "real life" project to show the importance of what they just learned and "when they will use it in their lives!" (This stemmed from the question, "when will I ever use this?"

Collaborators Describe the people with whom I typically collaborate (such as paraprofessionals, school psychologists, other teachers, parents, advocates, etc.) Throughout my typical day I find myself collaborating with the teachers I work with, the school psychologist via the telephone usually, parents on my preps to discuss grades, progress to goals, and arranging IEPs. I also see the advocates of the

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students at their IEPs and send home an extra copy of progress updates to the parents so they can send these on to the advocates if they so desire. This would be who I spend most of time talking with. However, after school hours, I spend the majority of my time working with the math departments (special ed) in our district. People at these meetings deal with the same issues and concerns as I do. Christine Kisselburgh and Kelly Indermuehle and I spend a lot of time working on common issues and problems that arise.

Philosophy My teaching philosophy definitely revolves around the positive feedback and
What you will most commonly hear me say to my students and athletes is, "You are not promised a tomorrow, give all you have today and don't have any regrets!" I love to be upbeat smiling and greet each student as they enter the classroom. I get rid of any bad attitudes that they may bring in from the outside prior to starting class so we can focus on the material being presented.

Following that idea, my next famous philosophy-in-action is cooperative learning. I have the students do a lot of team building and bonding activities, which are really their word problems just acted out many times where they have to work together. It is much easier "when we use everyone's ideas and brains rather than to work alone!" I love to hear them say that.

I also will have students come in after school and work with me one on one so that they can stay caught up with the rest of the class. I will have popcorn or some kind of food here so that they enjoy being here and try to keep it all positive and not negative, since many of my students report that they "feel stupid" for not getting it the first couple times in class.

I love to give tickets (concrete tokens that are symbolic of more abstract things they do in my class) that they earn for doing problems on the board, for helping each other, for finding mistakes I have made, reading and restating the text read, for passing out papers or collecting them etc. Then I do a random drawing of the tickets at the end of each day where the tickets are turned in for small rewards. I do this so that if I am absent they can almost run the class without the help of the substitute.

They learn how to read the text and help each other understand it better in notes. I love to teach my students and see them mature and take on responsibility. I also love to read the responses from the substitutes when they say that the kids were so good that they did it all themselves.

With online courses such as these I feel that the students are getting a good jump start to their futures. Also I believe that peer tutoring and coaching is one of the best teaching practices because kids learn more from each other than we can imagine. This starts back in preschool were they share and play make believe. These are just a few of my beliefs of best practices used in teaching and what you would see if you visited my classroom.

Description of My Typical and Atypical Learners

The "typical" atypical learner that is found in my classroom is the child with learning disabilities. They all qualify under this category due to the fact that they have a severe discrepancy between intellectual functioning (IQ) and their academic scores (score retrieved from a variety of different tests such as the WIAT, Towl, KTEA, etc.) If there is more than a 22 point difference in these two scores, then they qualify in that particular area.

I work with students who qualify under learning disabilities in math, and many qualify also for written language etc. They also have processing deficits as well. A characteristic that you would commonly see in these children is the lack of organization. Another very common one is their lack of focus for a long

amount of time. I must shift activities or give them a break at least each 15 minutes if I want them to maintain concentration on what I am doing.

They may also show low self esteem in life in general with comments such as, "No one likes me anyways," or "I can't ever do it right." That is why we spend a lot of time working on self esteem and reading from "Tuesdays With Morrie." These students may also show characteristics of other areas as well. They have characteristics associated with mild mental retardation in that they learn at their own speed and in their own time. Some of the students will get it the first time, while those same students on the next chapter in the same subject area will take a couple of weeks in order to understand and finally grasp the concept.

They all show signs of the student with emotional challenges on a given day. They are easily distracted and can easily be frustrated and not be able to respond from typical cues given in the classroom. They tend to either become very quiet and withdrawn or verbally act out with inappropriate comments. Finally, I also have a child with autism who shows signs of all these categories. At times I really feel that he and I speak totally different languages. I will ask him a question and he responds as if he is finally answering a question his mom may have asked him prior to going to school. He may respond to the answer to number four is "No, mom, I already drank my milk." But he absolutely loves to talk in my class and be heard on his own time. That would mean that he also characteristics of the ESL child. He has poor studying skills which would include forgetfulness, needs to be reminded to use his planner. All in all I mostly see the child with learning disabilities but I can easily say after an entire day I have seen and worked with all types of learners.

These learning characteristics show up as instructional needs. They come in as very needy children as freshman and slowly learn to become self workers. They will need to be reminded to put their homework assignments in their planners. That is the first task of the day so they can refer to it later if they do not finish in class. They also need constant change of pace but yet some consistency in the daily routine so they can feel that they are on top of what is going on. They need review of the same topics all year long because for something to be stored in long term memory is a difficult task. This would also mean that they may all work as a group but then they may also be working at their own pace too at times. The one I didn't talk much about would be the gifted children but when you assign projects to them, you see an artistic side come alive and they must be challenged in this sense so putting them with those who are not artistic pushes them to teach and work together collaboratively. I feel their biggest need is for group work and talking to overcome the fear of talking to others in a social setting. They also learn what is proper and what is inappropriate at times like these.

Brief Description of Learner Whose Individual Progress Will be Monitored The student with which I will be working is a female and her name for this assignment will be Sharlene. She is a fourteen year old girl who qualifies to receive special education support under the learning disability category. Her specific learning disability is in the area of math. Her math reasoning on the WIAT was a 65 and her overall IQ was an 89. She also qualifies to receive DIS speech and counseling. Sharlene scored a 1 out of 15 on her pretest of fractions with common and uncommon denominators. Let the records note that Sharlene misses one of four class meetings a week (Tuesday).

Academic Behavior The objective is to increase student comprehension in the area of fractions. More specifically, adding, subtracting, dividing, and multiplying with unlike denominators. All students in self contained math classes have a goal on the IEP that pertains directly to fractions.

Relation to State Standards These standards are from the Poway Unified School District and they are aligned to the State of California's standards: 7.2.2-add and subtract fractions by using factoring to find common denominators. 7.1.2- add, subtract, multiply, and divide rational numbers (integers, fractions,

and terminating decimals) and take positive rational numbers to whole number powers. 7.1.3-Determine when and how to break a problem into simpler parts. 7.2.2- apply strategies and results from simpler problems to more complex problems. 7.2.0- the student will take the opposite and find the reciprocal.

Educational or Assistive Technology Challenges The problems that we most run into is the students buy calculators and/or do not remember to bring them to class each day. Without these, the students' notes vary depending on if they needed notes for the calculator use or for long-hand use. We also lack a variety of manipulatives for fractions and the ones that we do have are more confusing than helpful for our students.

Methods to Monitor Student Progress For the student described above, data will be collected during tutorials for fifteen-minute intervals for a period of three consecutive weeks. However, should the data shows that the student is not being successful due to the interventions, a new intervention will need to be implemented. Also, note that the student's IEP allows for the use of a basic calculator (this does not include a scientific calculator). We will be using several types of data to collect information so as to obtain as holistic a perspective as possible about the student's strengths and needs.

Entry Level The student will complete a pre-test to get a baseline of adding, subtracting, multiplying, and dividing fractions with uncommon denominators.

Personalized Interview The next step is to interview the student on how she feels about the subject of fractions and past experiences with fractions.

A checklist will be developed and used to monitor during instruction. Included will be items such as how often the student attends class, comes prepared with appropriate materials, asks appropriate questions, completes assignments on time, and asks for help when needed.

Mini Quiz In addition, the student will receive a mini-quiz covering similar tasks as found on the pre/post tests on the second tutorial day to determine if the intervention strategies being used are having any impact.

Post Test Finally, the posttest will be administered to see if fractions are being completed with more accuracy than during baseline.

ABC Analysis *A-(Antecedents) Sharlene* has been bringing her book on a daily basis as well as her pencil, calculator, and paper for work and notes. She arrives daily on time. She is seated next to the back door and the pencil sharpener. Sharlene has already been introduced to this a number of times and has still not mastered the concept of adding, subtracting, multiplying, and dividing. B-(baseline) *Sharlene demonstrates great classroom discipline, behaviors such as* on task, and does not talk out or disrupt others. She does participate when called upon and at times has the correct answer. She is pulled out for speech twice a week for half an hour. She is currently able to answer 1 out of 15 correct on the pretest. Her interview showed that she has never been successful in math and that she has a difficult time completing assignments in an average range of time. T*he C (consequences)* that Sharlene demonstrates is slight frustration. She never gives up or becomes outwardly angry and aggressive. When asked to attend tutorial, she comes on time and completes the given work. However, she only does what she needs to do and does not ask for further explanation than what I offer her. *The E- (error correction procedures)* that are already in effect for Sharlene is constant and instant feedback to keep her from continually doing the same type of problem incorrectly. I will stop her after doing two problems and investigate what she is doing incorrectly. After a few more examples, she is set on her own to try again. She is now on mandatory tutorial twice a week for at least fifteen minutes.

I believe that I should move Sharlene to the front of the room. Having her away from the door and also from the pencil sharpener may allow her to hear better and also see the board more clearly. I think being closer to the front may make her feel uncomfortable at first but then she will get settled up there and I will be able to watch her take notes and have her answer when I see she has the correct answer. I could also have Sharlene take a note card and develop a hint sheet with the ways of solving each problem. She can refer to this note card for tests and/or homework. I will also have Sharlene use a non graphing calculator, TI30xIIs.

I have asked her to now come to two mandatory tutorials a week and to be sure that she and I spend at least fifteen minutes each day one on one with me or another tutor. I have made her make up any assignment where she has gotten less than 80% correct. I will have her redo her note card each week as needed if she is not getting better from the first card she creates. I will also demonstrate how to use the fraction button on her calculator if, after two weeks of the note card, she is not showing improvement.

I really believe that these are good error corrections and that if I had the time to do this with all the students it would keep the class moving forward rather than having some ahead and some really far behind. Constant feedback has definitely shown to be effective for Sharlene.

Data Based Decisions and Interventions I decided to move Sharlene to the front and center of class. I have given her a scientific calculator to help her with the fractional problems. Along with the calculator, I have also written out new note cards showing her how to use calculator.

I realized that Sharlene has a severe issue with short-term memory; however after nine months of multiplication facts that with skill and drill she has committed this knowledge to long-term memory. I know that for her to able do to the same thing with fractions, it will be a long process but it is attainable.

Report of Results The results of this data based project are displayed in graphs by numbers and percents. At the beginning of the project one will not see much progress. Yet, as soon as the new calculator was introduced and Sharlene has enough practice using it, she shows a steady increase in scores. She also reports a higher self esteem as shown in the post-interview.

Summary and Recommendations Sharlene's overall results showed that her progress was definitely very positive. After looking at the results, there were some definite highs as well as lows. A lot of this was due to the fact that she did very well as I was there teaching her but then to test on it, she would lose it. The most important part to notice is that she did very well with a scientific calculator. At first she had a hard time with using a calculator, expressing the feeling like she knew how to do it. I said that it is a lot like people using word processing. We don't call them cheaters for using that. It is a tool that makes our lives easier and we should take advantage of it. There is no longer a reason for us to hand type out papers on a typewriter because we consider using a computer cheating, same with the calculator. Sharlene will continue to need support with putting this into permanent memory and just like multiplication timed tables, it will just take time. She will need to continue to teach others and most likely next year be a teacher's assistant for me so she can help work with my students next year as they begin learning what she is mastering!

Advice for future DBI projects I felt that the topic of fractions was too broad. It would have been much easier and clearer to have pinpointed just adding and subtracting with common and uncommon denominators. That would have been plenty broad enough to get the idea of what interventions worked and what did not work. I would suggest that the person keeps a record of EVERYTHING. It is so easy help the student and forget to document what you discussed or recommended. Finally, I would say it is much easier to get an outline of what you plan to do done early and follow it the best you can. Knowing

what you need before you start is the key!

My experience and study of the CAR/DBI process show me that I did a great job of discovering Sharlene's needs and addressing them. I noted that one of the most difficult aspects of working with Sharlene is her memory issues. Other than that, keeping a good chart of the progress from each intervention definitely shows what is working and what is not working. Grades are important but there is so much more behind the grade that we may over look. I know that Sharlene may have had the knowledge but the memory problems would keep her from doing well on a final test of the chapter because it was too much to keep in and retell without a note card or calculator. I also find now that the CAR/DBI process for Sharlene has been completed, as I continue to work with her, that she is doing better each day and using the card less and less often. I have her working with other kids who have forgotten how to do these skills and by teaching others, she is putting it into permanent memory for herself.

I have learned a lot and also feel more confident that I am doing my job as a special education teacher who can modify and try new things for the success of my students.

The collaborative action research process was a great experience for me. I learned a lot about how it "proves" what you are doing is successful. I have always been able to see what is working and what is not working but I have never had "evidence" to show others why I do what I do with each student. Working with high school students in the pre algebra class daily, I chose to use modifications on one of my students and chart her progress. After much discussion with Kelly and Christine, we found we were all working on about the same idea. Therefore, after talking with Toni and Ann we were granted permission to complete our project together. After taking all our information and comparing it to each other, then we learned a lot more from each other and how to work with our students. What really helped in comparing our information was the fact that we used the same worksheets and time lines so comparison was easier. After each step we would compare the progress of our students and also use each other for ideas in what to do next.

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CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Christine Kisselburgh*

Description of Teacher I have an Arizona teaching credential for regular elementary education and K - 12 special education. I am certified to teach students who are classified as MR and ED. In California I have teaching credentials to teach students with mild/moderate and moderate/severe disabilities. As a teacher I have policies and procedures set for my students to follow. My classroom is relaxed in the sense that if students have questions or concerns, they feel comfortable addressing them with me. I can often be found after school working with students who require extra assistance. I believe in teaching to mastery and will design curriculum to help foster student achievement. I feel it is important to actively engage students.

Ranges of ages/grade levels of the students I typically teach students with mild-to-moderate mental retardation, students with specific learning disabilities and students with emotional handicaps who are receiving services in Special Day Classes and Resource Rooms in grades 9 - 12. My students function at the first through fifth grade levels in reading comprehension and math skills.

Description Setting of the ethnic and linguistic diversity of my learners, and their socio-economic status I teach at a high school which is located in urban San Diego. Our school is predominately white but we have a wide range of ethnicity. I have three students who are limited english proficient. Several of my students' parents work two and three jobs to live in this area. However, the majority of my students' families would be considered middle class.

Curriculum The district has adopted the AGS math series for our district to use. My class currently uses the Basic Math Skills book which covers the basic principals taught in pre algebra. Due to the functioning level of my students, we spend extended periods of time to learn basic concepts. I will also incorporate life skills lessons to help my students learn functional curriculum. I also teach English, reading, and writing. I pull together supplemental materials and will often develop my own curriculum. For example, my English class has eight boys and one girl. The students often complained about the curriculum I was using, so I developed a series of lessons on automotive care. These lessons incorporated vocabulary, spelling, reading comprehension, and hands on experience for the students. My classes also utilize community based education to help link what is taught in the classroom to the real world.

Collaborators The people with whom I typically collaborate (such as paraprofessionals, school psychologists, other teachers, parents, advocates, etc.), include for example, during first period I collaborate with a general education teacher in a Intro to Computers course. John and I have worked together for two semesters and we have found our model of instruction to work well for the students in the classes. I also work with the general educators in regards to making sure that the students on my case load are having their IEP's implemented in all of their classes, to help with modifying curriculum, and to offer assistance in any other area that they see fit. I have two, three hour instructional assistants. However, I have them working with the students in the general education classroom for half of the day.

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Two students in my classes have one-on-one instructional aides. I encourage these aides to help with small group instruction, helping modify assignments, and anything else that may just "come up". I am very lucky to work with exceptional instructional assistants!

My school psychologist and I work together often to track student behavior, work on counseling goals, and make modifications to behavior plans. This school vear, 9 of my 12 students had triennials due, so the school psychologist and I have worked many hours together. I find her to be an important resource for my students.

I also work with the district nurse on a continual basis. Several of my students are qualified as other health impaired or orthopedically impaired so we work collaboratively to make sure that their needs are being met.

I also collaborate with the parents. I have found that having supportive parents can make all of the difference in the world. I meet almost weekly with the teachers at my school to discuss students that we "share".

I find it to be very helpful for all of us (the teachers) to be on the same page in regards to student behavior, academic achievement, and parent communication. I also work closely with the other math teachers in my district. We have been working very diligently to align our curriculum to the CAHSEE.

My Philosophy

In my classroom, you would see a very structured environment. The students helped to create the rules and the token economy. The students earn points throughout the day to be able to earn tickets. The tickets can be used to purchase food items, extra freedoms, and "no homework" passes.

I am very fortunate to have four adults in my classroom. I have a classroom aide and two one-on-one aides. Having this amount of support allows me to use small group instruction. It also allows me to make sure that the students are receiving the individualized attention that they deserve.

I follow Anita Archer's model of "I do, we do, and you do." {I Model what I want the students to do; Do it together with the students; Then students do it alone.} This seems to work well with my population of students.

I also re-teach curriculum as needed. My school principal gave my department approximately $10,000 to purchase a reading curriculum. Our basic focus is increasing reading decoding (many of our students are reading at the third grade level) and reading comprehension. We are implementing the reading program cross-categorically. We have decided, as a team, that each and every special education teacher will implement and use reading strategies with our students. This will include reading strategies for math, science, and history.

I have already started using the direct instruction material that my principal purchased for my class. And I will be taking several professional development days to work on aligning our curriculum to the state or HSEE standards and to also align our new curriculum to our courses. In my math classes I encourage cooperative group learning and mastery learning models. I also try to relate the curriculum we are learning to life skills that they will need in the future. My students also have IEP goals and objectives to practice the skills that we learn out in the community. We go in the community at least once a month. assess my students I use teacher made and curriculum based assessments. Many times, the text books confuse my students so I try and write the majority of my assessments. This also helps to make sure that

I can modify the format to help ease the anxieties of my students.

My Typical Atypical Learners

In the classes that I teach this year, the learning characteristics of the "typical" atypical learners often reflect the characters of students with learning disabilities. The majority of my students display deficits in the areas of reading, writing, and math. They are unorganized, they do not understand the basic principals of studying, and they lack the social skills that are displayed by most high school students. The students in my classes tend to stay within their "group". Meaning, they hardly ever socialize with general education students.

We have started the Best Buddies program on our campus to help foster the relationships between the special and general education students. Unfortunately, several of my students feel that they are "too cool" to participate in that program. For the students that have participated in the program, they have developed life long friendships with their "Best Buddies". The students are seen eating lunch together, going out after school, and remain in contact through phone conversations and e-mail.

Many of my students also display characteristics of mild mental retardation. They display short and long-term memory deficits, many of them qualify for speech and language services, and they display immaturity with social skills.

In the area of mathematics, my students have been learning the same concepts for three years. Each year the instructional time shortens, they master the concepts but when we review it the next year, they forget that they know how to solve the problems. Once I start instructing the students, then they get an "aha, ha" moment. Another example of their short and long-term memory deficits is one day with know how to complete a task, without any prompting, and the next day its like you never taught them. At times this gets frustrating, but it's also why I love teaching this population of students.

How These Instructional Learning Characteristics Reflect Instructional Needs Part of this question is answered in the later response. I use a much slower pace of instruction that is used in other special education classes as well as in the general education environment. It often takes several weeks longer to teach them the "basic concepts". I also use a variety of modalities when teaching my students. I use visual, auditory, and tactile teaching methods. The students often have to role-play skills that we are going to use in the community. We will practice with each other how to ask for employment applications, ordering off of menus, and other basic skills needed when going into the community.

Brief Description of Learner The student that I will work with for this CAR/DBI project is "Bob". Bob is a sixteen-year-old freshman. He has been a student in our district for 10 years. Bob's primary disability category is OHI. Bob has cerebral palsy and utilizes crutches to assist him with mobility. Bob currently lives with his mom, sister, and a roommate in a two-bedroom apartment in Escondido. On the WIAT, Bob scored a 65 in the numerical operation section and a 70 in the math reasoning section of the test. Bob knows most of his multiplication facts, and his able to add, subtract, multiply, and divide whole numbers with a 75% accuracy level. Bob can currently add or subtract fractions with 20% accuracy and he can multiply or divide fractions with 40% accuracy, without using a calculator. Due to Bob's cognitive disabilities, it is difficult for him to remember the steps to complete the fractional problems.

Academic Behavior The objective is to increase student comprehension in the area of fractions. More specifically, adding, subtracting, dividing, and multiplying with unlike denominators. All students in self contained math classes have a goal on the IEP that pertains directly to fractions.

Relation to State Standards These standards are from the Poway Unified School District and they are aligned to the State of California's standards: 7.2.2-add and subtract fractions by using factoring to find common denominators. 7.1.2- add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole number powers. 7.1.3-Determine when and how to break a problem into simpler parts. 7.2.2- apply strategies and results from simpler problems to more complex problems. 7.2.0- the student will take the opposite and find the reciprocal.

Educational or Assistive Technology Challenges The problems that we most run into is the students buy calculators and/or do not remember to bring them to class each day. Without these, the students' notes vary depending on if they needed notes for the calculator use or for long-hand use. We also lack a variety of manipulatives for fractions and the ones that we do have are more confusing than helpful for our students.

Methods to Monitor Student Progress For the student described above, data will be collected during tutorials for fifteen-minute intervals for a period of three consecutive weeks. However, should the data shows that the student is not being successful due to the interventions, a new intervention will need to be implemented. Also, note that the student's IEP allows for the use of a basic calculator (this does not include a scientific calculator). We will be using several types of data to collect information so as to obtain as holistic a perspective as possible about the student's strengths and needs.

Entry Level The students will complete a pre-test to get a baseline of adding, subtracting, multiplying, and dividing fractions with uncommon denominators.

Personalized Interview The next step is to interview the student on how he/she feels about the subject of fractions and past experience.

A checklist will be developed and used to monitor during instruction. Included will be items such as how often the students attend class, come prepared with appropriate materials, ask appropriate questions, complete assignments on time, and ask for help when needed.

Mini Quiz In addition, the student will receive a mini quiz covering similar tasks as found on the pre/post tests on the second tutorial day to determine if the intervention strategies being used are having any impact.

Post Test Finally, the posttest will be administered to see if fractions are being completed with more accuracy than during baseline.

ABCs Analysis The ABC's and E's already in effect for my learner "Bob" include when we work together in class we have a one to 13 teacher, student ratio. But when I have Bob attend tutorial, come in during lunch, or stay after school we have a one on one ratio. Bob consistently brings his required materials to class and to our "tutoring" sessions. These materials include his book, binder, paper, pencil, required assignments, and a basic calculator. Bob has received instruction for adding, subtracting, multiplying, and dividing fractions while in middle school. However, he did not retain the information.

The behaviors (academic performance) that "Bob" has already displayed is that he can currently add and subtract fractions with 20% accuracy and he can multiply and divide fractions with 40% accuracy. "Bob" is on task during class time and during tutorial lessons. He does have difficulties with tracking information on the overhead screen due to his cerebral palsy. When "Bob" has questions regarding the material being taught, he always asks for help or clarification.

The consequences that are now displayed by Bob when he does not understand the material, is he will try and complete the assignment even if he knows he is getting all of the answers wrong, he will often sit and do nothing, or he will wait to ask for help in tutorial or after school. Bob tries really hard at his school work and is not easily discouraged. When Bob gets his work done correctly he is rewarded with a good grade and physical rewards. The physical rewards include soda, candy, time on computer, etc. The error correction procedure currently in place includes allowing Bob to re-do his assignments to get better grades. Offering him help during tutorial, after school, or during lunch. I also try to have Bob look over his work to try and catch his own mistakes.

The antecedents that I can change in my teaching environment to get a change in the learner include: (1) Placing a note card on the students desk to prompt him to go to the next step. With +, -, x, and dividing fractions there are multiple steps that often confuse the students. By having a note card on the desk, it will help the student try and independently problem solve to get the answer. (2) Another change is allow the student to use a scientific calculator that include an A b/c fraction button. By having Bob use a calculator with this button, he will only have to learn the basic buttons to push and then can go on to learn more complex math problems.

The consequences that I can change include:

(1) Have Bob work with a peer tutor for math every afternoon. This may help with his retention rate. Tutors are available in the Bronco Center in every academic area, every afternoon.
(2) Try to offer more immediate feed back. It is difficult since I have 13 very needy students and only myself to help them.
(3) Allow the student to use the scientific calculator if the note card does not seem to help him. I will collect data for two weeks, and if no improvement is noted, then I will begin implementing the calculator instruction.

The error correction procedure currently in place includes allowing Bob to re-do his assignments to get better grades. Offering him help during tutorial, after school, or during lunch. I also try to have Bob look over his work to try and catch his own mistakes. No, I don't think that I will change them at this time.

Results--Data Based Decisions and Interventions: The "data-based" decision that I made was to allow Bob to utilize the scientific calculator. The note card helped Bob increase his percentage from 20% to 60% accuracy. However I noticed that he was beginning to plateau with this additional support. I feel that Bob is a very motivated student who just needs to be given the additional support of a calculator to be successful.

Through working with Bob during tutorial I was able to utilize reflective teaching by becoming aware of the amount of physical as well as verbal prompts that were needed for Bob to complete the assignments. By tracking the number of prompts I was able to make sure that my scores were true reflections of the information that Bob was learning. This was also helpful when I had to make the decision to continue using the note card or to allow him to access a scientific calculator. By knowing how many prompts Bob required to successfully complete an assignment, I was able to know that he wasn't retaining the information.

Are the instructional interventions creating the desired changes in the learner? Yes! Bob he brought his materials on a daily basis and was in the front and center of the classroom due to his visual problems. Therefore, no other antecedents were scheduled. Therefore, it was time to try an intervention. The first intervention I tried with Bob was to give him a basic calculator and a note card for him to write down notes on how to add fractions, subtract fractions, multiply fractions, and also how to divide fractions.

Bob only improved to a 60% proficiency. Therefore, at this time I implemented a scientific calculator. From this, he improved to an 85-90% proficiency.

The decisions that I am making are based on how Bob does with each of the interventions tested. After the first set of interventions that he was not successful with, I decided to try something else. This would continue until the desired outcomes are met. My results were posted in a graph that shows where Bob is successful versus when he is not successful which is why the graph is important. The pre interview and post interview reports from Bob will be summarized.

Summary and Recommendations After graphing my results, I saw a significant gain in Bob's understanding of fractions. His scores improved and the physical and verbal prompts decreased. There were days when he needed several interventions and other days when he needed very little. When I first introduced using a scientific calculator, I was a little leery about the results that I would see. But after its implementation, it became apparent that this was an intervention that I should have implemented a while ago for all of my students. Bob had been trying to master fractions since 7th grade and was becoming frustrated because he couldn't remember all of the steps. The scientific calculator really helped to decrease his frustration level. Through the post interview, Bob stated that the intervention had helped him to learn math. He felt that the intervention was positive, since it helped him to learn the material. He also stated that with the "new calculator" (scientific calculator) math was now easy. It seemed to me that Bob was proud to finally have "gotten" the information.

Suggestions for future studies I felt that we picked a very broad topic. I would recommend that future students pick a topic that is narrow. We were unable to finish all of what we had hoped to cover. If we only focused on addition/subtraction or multiplication/division of fractions it would have been much easier to accomplish the DBI project. Instead, we tried to implement and document results for all four basic computation areas.

Using the ABC's of DBI has been helpful with my instruction. I have been using DBI instruction as a whole class model since I graduated from ASU West in 1998. However, it was refreshing to take the time to implement it on an individualized basis. I feel that it is hard to make the time do implement individualized DBI for all students. If a self monitoring approach was taught to the students, it would simplify the DBI process for the already busy teacher and at the same time, perhaps the self monitoring process would assist the learner towards increased self regulation.

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*This project was submitted in partial fulfillment of the requirements for EDEX639, under the supervision of Toni Hood, Special Education Assistant Professor at CSUSM, and Ann Nevin, Special Education Professor at ASU West, during Spring 2002. Protect the intellectual property rights of the author by using appropriate citation techniques when referring or excerpting aspects of this project.

CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Kelly Indermuehle*

Description of Teacher I originally began my college career at the University of Wisconsin Oshkosh. I spent three years at the college and was majoring in students with Learning Disabilities and Emotional/Behavioral Disabilities. When I married my husband I transferred to Purdue University where I finished my B.A.in special education Mild/Moderate. I recently returned to school to finish my Level II and to possibly fulfill my masters degree.

Ranges of ages/grade levels of the children I typically teach I teach at the high school level therefore, my students are typically between the ages of 14 - 18 years old. At this time I teach three Pre-Algebra classes that have students grades nine through twelve. I also teach two Learning Strategies classes with students who are in grades nine through eleven. The population of students in my classes range from students who receive services in Special Day Classes to those who receive services from a Resource Specialist.

Description of the ethnic and linguistic diversity of your learners, and their socio-economic status

The school is set in an urban setting. Typically, this a "well-off" school; however, within the classes I teach I know of several students who are living in foster care because their families are homeless. Even though this is a well off school, several other families drive their students to attend school; however, they may live outside of the district. In general the majority of students in my classes are white, with roughly 10% hispanic, 5% black, and 1% philipino. All the students in my classes speak English fluently, with the exception of one who is Limited English Proficient.

Curriculum My district has adopted the AGS math series; therefore, I use the AGS Pre-Algebra series. I also use other resources available that are not part of the AGS series to help prepare students for the California High School Exit Exam. This includes a wide-variety of supplemental materials pulled from other textbooks or books bought at a teacher store. For Learning Strategies unfortunately, there is no set curriculum to use. I have bought many books from the teacher store that focuses on learning strategies, study strategies, and reading comprehension strategies.

Collaborators People with whom I typically collaborate (such as paraprofessionals, school psychologists, other teachers, parents, advocates, etc.) include, on a typical day, collaboration with paraprofessionals, the school psychologist, other teachers, parents, and advocates are a regular occurence. In addition, after school meetings are designated by the district for curriculum teachers to attend to discuss the curriculum being used in class, to share ideas, and to discuss any concerns for the California High School Exit Exam.

Philosophy

My instructional management consists of many things, however, each class is quite unique in terms of

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what management system I use. What is consistent throughout the classes are the amount of positive reinforcement I use throughout the class. To make sure I provide positive reinforcement I usually make mental notes to myself. I try to hit each student everyday with a positive praise. It might result in a good job, pat on the back, high five etc.

Another strategy I have found to be very successful was to pair students in small groups while working in class. If students are struggling with concepts in Pre-Algebra I usually have students who I feel are competent go around and check the students who are struggling. I also have designed a seating chart where I have paired a more competent student next to a less competent student in math, therefore, when its time to work or share solutions I know that my struggling students will be taken care of. I have found this method to work quite nicely. At times, I have found that no matter what strategies I try, some just need to have the amount of work reduced or modified. I like to try other strategies first, rather than reducing the amount of work, because I have found in math the more practice the more confident students become in their abilities.

Another strategy I have used for behavior is a ticket system. If students have homework completed, they get a ticket. If materials are ready, another ticket. Answered a question, another ticket. Then at the end of the week tickets are collect in a bucket and a prize is drawn. Finally, the last instructional management strategy I have been fortunate to use because I teach at a high school, is the use of a student T.A. I utilize my T.A. when someone has been absent and needs to get caught up on assignments or lecture notes etc. The T.A.'s I've had are skilled in math which makes me feel comfortable to have my students working with another student, while I work with the rest of the class. However, if students are still struggling in my classes, I assign a tutorial. Tutorials are availabe every Wednesdays and Thursdays where students go to teachers to get help. A lot of times, I'll assign tutorials for students to finish tests, complete homework, or if I know they need additional instructional assistance on the lesson.

My Typical Atypical Learners The learning characteristics of the "typical" atypical learners in my classroom could best be described as learning disabled, but also students do have other characteristics such as found with students with Mild Mental Retardation. Many characteristics described in this article I find regularly amongst students in my math classes. Math is a weak subject for all of the students; that is why they are in a special education math class. Many students daydream while I'm teaching math; it seems to be their escape from something that's difficult. Misplacing homework, calculators, pencils, or forgetting homework or the textbook at home are additional characteristics of the students in class. Some do display high levels of energy to the point where they can't stop fidgeting, where as others are distractible (even at the slightest little thing), but they do eventually get themselves back on track. Again, I think the distractibility and energy levels are even more profound when in math, because most of my students dread doing math when they know it's hard and they're not up for the challenge. I have three out of 50 students who are prone to rapid mood changes; especially if they want to do something but I need to continue with the lesson, their attitude and whole persona changes (unfortunately all are in the same class).

Instructional needs I provide students to encourage success in math, includes immediate feedback, 1:1 conferences and homework help, or students are assigned a tutorial after school to get help. Several things I have found to be helpful also is to encourage small group learning. Most of the time students want to work independently; I found that if I put them in groups, more learning on both ends is accomplished. Something that I am just beginning to use regularly is an agenda that lists out what will happen. I always used one, but lately it's become more detailed with my expectations listed also. In the math classes I do have one student who has mild mental retardation; she has significant delayed intellectual ability, but with constant supervision, repetition, reinforcement, and modifications to homework she is able to successfully compete in a pre-algebra math class. In addition, this student displays severe memory deficits; one day she will understand the concept while the following day it will

have to be taught from the beginning. Unfortunately, this student has few "friends" in class. She is polite and accepts everyone, and the students in class accept her as well, however, it is evident she lacks that social connection.

Brief Description of Learner The individual student I will be focusing on is a student who just transferred into my class at the beginning of second semester of this year. It was obvious from the beginning that this student, I'll call him Devon, was fairly capable of performing math functions but he had many deficits in this math understanding. Devon knows his multiplication facts; he knows how to add, subtract, multiply, and do some division problems (long division is a struggle); however, he is lacking in all areas of fractions. He is unfamiliar with how to simplify fractions, he routinely adds his denominators together even if they are already common, and he cannot remember the steps to solving fractions on a continuous basis. On the WIAT test he scored with a 76ss Numerical Operations and a 69ss on Math Reasoning.

Academic Behavior The objective is to increase student comprehension in the area of fractions, more specifically, adding, subtracting, dividing, and multiplying with unlike denominators. All students in self contained math classes have a goal on the IEP that pertains directly to fractions.

Relation to State Standards These standards are from the Poway Unified School District and they are alligned to the State of California's standards: 7.2.2-add and subtract fractions by using factoring to find common denominators. 7.1.2- add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole number powers. 7.1.3-Determine when and how to break a problem into simpler parts. 7.2.2- apply strategies and results from simpler problems to more complex problems. 7.2.0- the student will take the opposite and find the reciprocal.

Educational or Assistive Technology Challenges The problems that we most run into is the students buy calculators and/or do not remember to bring them to class each day. Without these, the students' notes vary depending on if they needed notes for the calculator use or for long-hand use. We also lack a variety of manipulatives for fractions and the ones that we do have are more confusing than helpful for our students.

Methods to Monitor Student Progress For the student described above, data will be collected during tutorials for fifteen-minute intervals for a period of three consecutive weeks. However, should the data show that the student is not being successful due to the interventions, a new intervention will need to be implemented. Also, note that the student's IEP allows for the use of a basic calculator (this does not include a scientific calculator). We will be using several types of data to collect information so as to obtain as wholistic a perspective as possible about the student's strengths and needs.

Entry Level The student will complete a pre-test to get a baseline of adding, subtracting, multiplying, and dividing fractions with uncommon denominators.

Personalized Interview The next step is to interview the student on how he feels about the subject of fractions and past experiences with fractions.

A checklist will be developed and used to monitor during instruction. Included will be items such as how often the student attends class, comes prepared with appropriate materials, asks appropriate questions, completes assignments on time, and asks for help when needed.

Mini Quiz In addition, the student will receive a mini-quiz covering similar tasks as found on the pre/post tests on the second tutorial day to determine if the intervention strategies being used are having

any impact.

Post Test Finally, the posttest will be administered to see if fractions are being completed with more accuracy than during baseline.

ABC Analysis *Antecedents*-Devon is currently located in second seat from the front. He has a good view to the white board and overhead (when he's in class). When I work with Devon during tutorial he works with me one on one. The materials Devon currently brings to class regularly are his math book, pencil, paper, calculator. Assignments are typically given in class, one or two examples are modeled, and then students are allowed time to work in class independently or in small peer groups. While students are working, I walk around to monitor progress. Devon actually has received basic instruction in fractions. However, he routinely makes the same mistakes over and over and does not remember the steps for completing fractions.

Behavior--Devon is very polite in class. He raises his hand, to answer questions, but does not ask questions when he needs or does not understand the material. He often will attempt the material and continue doing it incorrectly just to get it done.

Based on the pretest, Devon answered 0 of 15 correctly. Errors he made frequently: he routinely cross multiplied or cross added to complete the test (We just finished a section on ratios and proportions where cross multiplication was used).

Consequence-After the pre-test, I explained to Devon that he didn't answer any questions correctly. He was not surprised by this. After he completed the test, I remember that he stated he was not good at fractions and he probably got them all wrong. During the interview section, he felt that with proper instruction in fractions he could learn the material. I have to commend him because even though he doesn't know the material he has such a willingness to learn it. Devon really enjoys having the grade earned written on his papers. This is a visual for him to see and something he clearly enjoys. Positive reinforcement is also something that Devon likes, but I think the best consequence for him is when he's proud of himself, when he know he is capable of doing something and then succeeds--that's when it really matters.

Error correction--Devon has the option of re-correcting homework and or quizzes/tests for more points. One on one contact in tutorial, peer tutoring. Also, I look through the test/homework prior to actually accepting it. If I see problem areas or a constant error, I will point it out and have Devon look through the material again.

Several antecedents that can be used in the teaching environment for Devon is to provide a notecard with the specific steps for how to solve fraction problems and also a scientific calculator that will allow Devon to answer the questions correctly by using the fraction button.

Several consequences that can be changed is to provide Devon with peer assistance during tutorial. I can have a student who has mastered fractions work with him. (Sometimes students connect better with other students.) Next, I could provide more specific step-by-step instructions on the notecard, more immediate feedback on correct and incorrect responses, and finally, if after 2 weeks of continued data collection, the students' scores are not improving thus showing that the interventions are not successful, I will allow the student to use the scientific calculator.

My error correction procedures are that Devon has the option of re-correcting homework and or quizzes/tests for more points thorugh 0oe-on-one contact in tutorial, peer tutoring. Also, I look through

the test/homework prior to actually accepting it. If I see problem areas or a constant error, I will point it out and have Devon look through the material again.

I feel that my error correction procedures are appropriate and I do not feel as if I need to change them.

Results -- Data Based Decisions and Interventions: The data-based decision I decided to implement was to have Devon learn how to self-monitor his progress with mastering addition, subtraction, multiplication, and division of fractions. Devon will create his own grade book to record his scores on his assignments. Then he will take the scores and plot them on a chart bi-monthly to visualize his progress.

Upon reviewing the data and after careful consideration, I have decided to work on Devon's self-monitoring techniques. I have realized that Devon is at a point in his educational career in which he no longer needs extrinsic rewards or prompting. Devon is happy will the success he is making in fractions, which I believe far out-weighs any external "rewards" I provide him.

Devon joined my class at the beginning of second semester and therefore, missed the entire lesson on fractions. As a result, he has been coming to me after school to learn the fractions material, because it's the foundation to what is being taught in class now.

Devon has progressed nicely. His scores on his homework assignments range from 53%-79%. I've noticed that the more complicated the task becomes, the lower his scores become. However, I have only decided to implement his self-monitoring technique instead of having him use the scientific calculator. At this time, I believe Devon has shown that with practice he can succeed (at least it as been that way with multiplying and dividing fractions). I'm confident that with continued practice Devon will clearly understand how to solve fractions. The next area of focus will be on adding and subtracting fractions, which proves to be challenging to all students.

The first intervention that I used immediately with Devon was to provide him with a **notecard** that detailed the steps he needed to do for the fraction problems. This served as a cognitive prompt for the procedures he needed to use. When Devon and I work together during tutorial I look to see he has completed his homework and has the desired materials necessary to be successful (paper, pencil, book, homework, calculator). If Devon does not have one of these materials I provide him with that, also, if he doesn't have his homework completed we work together on it. Devon and I have talked about the importance of taking responsibility for his learning, and what skills are necessary to be successful at school. I think this has helped motivate him to be successful. He recognizes his potential so he's making sure he continues to be successful. Other instructional interventions that might be available (such as seating, etc.) are not available because Devon and I work together during tutorial.

Devon has made a lot of progress in learning fractions and I can only credit his desire to wanting to be successful. He's taking it upon himself to come in for tutorial—- what he is doing with fractions is additional work to his regular schoolwork.

The decisions I am making are all based on the progress Devon is making during tutorial. Again, he is making significant progress; therefore, I have not introduced the intervention of a scientific calculator, but rather self-monitoring strategy. Devon and I work together to ensure he is grasping the material. I reported my results in the form of a graph, which indicated the progress Devon made since the beginning. I also reviewed the first interview I gave Devon (prior to the tutorials and discuss with him the same questions (for the post-interview) and see what has changed since the beginning. I think I will find that his attitude about math will increase, because I regularly see him having more confidence in his

abilities.

Summary and Recommendations Devon's understanding of fractions is evident in the data. The first day I'd introduce a topic Devon usually scored lower on his homework assignment because the information was newer to him. However, after a second day of instruction, his scores began to improve to the point where he was asking for little help and remembering the steps on his own.

During Devon's post interview, he commented that he felt he understood the material and could do fractions now. I would agree with his statement because in class I see him volunteering more and taking pride in his accomplishements. Devon surprised me with his progress. He was doing so well on his own, that I did not introduce the scientific calculator as I had originally planned. Devon used only a basic calculator and a notecard which led him step by step through each time of fraction problem. My impression of Devon was that he truly wanted to learn the material and that by using a scientific calculator would be giving in, and he wasn't ready to do that.

Advice for future DBI projects I felt that the topic (calculation with fractions) was too broad to cover. The intervention probably could have solidified the student's learning had the focus been on adding or subtracting fractions or maybe multiplying and dividing fractions. Covering all four operations did not alllow for time in the schedule to spend more than two days on each given operation; thus, by the end I felt as if I were rushing. Unfortunately, I had to sacrifice giving Devon a post-test because lack of time. I'd definitely have more of a narrowed focus.

Using the ABC's of DBI has proved to be beneficial. Actually seeing the work in progress when working with Devon was amazing. I was able to identify what was affecting his performance and what intervention I should choose to help improve his performance.

I liked the fact that I was able to work with Devon during tutorial to collect this data. I was able to work with him more on a personal level and cater to his needs, versus the needs of the entire class. Without this 1:1 instruction, I do not believe Devon would have performed so well.

The Collaborative Action Research process that was followed to complete the Data-Based Instruction project was quite complex. Toni and Ann granted permission for Michelle, Christine and I to work together on this project. Since the three of us teach high school and also math, we felt that we could develop a project that would compare three different students at three ability levels. We began by meeting and discussing our students' abilities. We chose students with different ability levels on purpose, to verify that the instruction and modifications/accommodations we designed would have differential effects on a variety of learners. We aligned our dates and used the same worksheets, interview protocols, etc., with our students. As we began collecting data, it became evident that the students were progressing and succeeding at different rates (just as we had predicted). For my project with Devon, the planned intervention of using a scientific calculator was not implemented; instead, a self-monitoring strategy was introduced for Devon. Devon did very well during this marking period; he was enthusiastic and truly came on his own because he wanted to succeed.

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Collaborative Action Research

CSUSM Spring 2002 Collaborative Action Research/Data Based Instruction Projects

Sean McNamara*

Description of the Teacher I am a third year teacher at Aliso Niguel High School in Aliso Viejo. This school is located east of Dana Point. My first two years of teaching/internship were done in San Luis Obispo at SLO High School. I was fortunate enough to have a Special Education Instructional Aide position while attending Cal Poly SLO. After graduating the the school district offered me an emergency teaching credential and a job teaching at their school. I did so for two years while working on the Mild/Moderate credential and Masters degree. I'm currently attending CSUSM to complete the second tier of the credential leading to certification to teach students with mild to moderate disabilities and a Masters degree.

Range of ages/grade levels of the children I typically teach. I work at the high school level. Six of the twenty-three students on my current caseload are designated as eligible to receive services for Speech and Language. The remaining are students with Specific Learning Disabilities of various sorts. The students that I am currently teaching are quite different from the students that I am familiar with. I have one student taking Advanced Placement European History and others that are deathly afraid of the stigma that can be attached to them for being seen with me. All of my students are very capable, but because of the many other factors that are associated with students with specific learning disabilities, some have difficulties with the structure and requirements of this school. Some of the more challenging traits my students present are attendance/tardiness and homework/project completion. There is little support at home for some of these students and their grades reflect it.

Description of the Setting Aliso Niguel High School is located in a very new area of Southern California. The yuppies of the eighties children go to this school. Our school has little problems with funding and resources. Though the school is in a very affluent area there are some students that live in apartment complexes (the apartments are still very nice and new, they aren't "dumps"). Many of my students do not live in homes, they live in the apartment complexes. Some of them are receiving federal assistance housing. It is very eye-opening to see the addresses of students in Spec Ed compared to the general ed. SES is playing a part in these students lives. I believe, though it isn't supposed to be a determining factor, that it is. The ethnic and language portion of this inquiry has little to do with my students because our school is pretty homogenous (white). I do have ethnic students on my caseload but it seems that it does not play a major roll in their lives. The ethnic students that I do see are from very affluent families that have been speaking English only for generations. The families are also very "American," they do not look Caucasian but they don't follow many of their cultures traditions, values, or belief systems. Ethnicity and language do not play a major roll in these students lives.

Curriculum I teach a Study Skills class and collaborate with three other teachers in English 10, Algebra 1, and Economics/Government. The Algebra curriculum is district mandated, it uses book work, reinforcement worksheets, hands on activities/projects, quizzes and tests. It is very difficult to teach Algebra with other creative strategies. We have found that it is easier to use a traditional math instruction approach. In English and Economics/Government the teachers that I collaborate with have

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multiple periods that they teach the subject. We therefore decided that we didn't want to modify the curriculum to much because it would create more work for the collaborating teacher. In these two classes I follow their lesson plans (which happen to be very accommodating to our students) using a "tag team" approach. They usually lead the class on major projects but I often teach many of the smaller detail lessons. It has become easier to view myself as being there for the students, not for the other teacher. In the Study Skills class I start each day with a short answer journal topic that has to do with Tolerance/Diversity, or some sort of other personal "Ethic of the week." After responding to the topic the students begin working on homework as I attend to each student and their needs. We don't really have a curriculum for this class.

My Collaborators I described much of the collaboration I have with other teachers in the previous question. We do have a full time psych at our school which is very helpful. We are able to accomplish everything we need to without having to plan so far in advance that it is ridiculous. I was also blessed to have an awesome instructional aide. She is a great disciplinarian and is unbelievable in the academics. I still am unsure why she isn't a Spec Ed teacher. We work together so much and so well that I often don't have to ask her to do things, she knows exactly what to do and when to do it. Our department works together pretty well even though we don't have a strong department chair. Most of the teachers are fairly new to Spec Ed so we all have similar educational backgrounds and beliefs. We usually watch out for each other and take care of problems that arise before they get out of control for each other. The entire school is pretty good about collaborating with one another. We are very busy but because of email we can accomplish many of the minor details of a collaborative environment without the time issues. Parents are very involved at this school. In most cases it is so beneficial to the students that it almost seems that the students don't need Special Education services. I communicate via email with parents on a regular basis regarding homework and glasswork assignments, along with grades, attitudes, etc. Some would probably be intimidated by the amount of communication that occurs.

My Philosophy My instructional management philosophies are not rigid. I tailor instructional strategies depending on the subject matter to be learned and the group of students that I'm instructing. For example, with a group of seniors I tend to be more democratic in my instructional strategies. I pose open ended questions and allow students to respond to each others statements. A group of freshmen in Algebra require a rigid yet calm and reassuring atmosphere. These students are usually not able to conduct themselves in the same manner as the seniors would. The instructional material also requires a methodical approach.

Depending upon the group of students and the subject matter, a reasoned and sound instructional management approach can be formulated to promote success for all students.

Description of Typical Atypical Learners in My Classroom In my first period Economics class, I have seven very intelligent students who require varied amounts of attention from myself or the instructional aide. Three of the students are almost completely independent. They are able to apply what they have learned after reading independently from the material provided. Two of the students need extensive support because they have a difficulties with the reading and can not comprehend the material. The two remaining students are able to read yet have some difficulties comprehending the material and are not successful because of a lack of motivation to complete the work in the final semester of their Senior year.

Learning Needs The three students that are independent, only after consulting one another, will ask for help from myself or the instructional aide. Generally the only problems they experience are with concepts that are not fully developed within the materials (Poorly worded material or questions). These students could be successful in a general education class but were placed in a this class at parent request.

The two students who experience difficulties because of reading and comprehension difficulties receive about 75% of my time and focus. I read and explain the material as we progress through the selection each day. I work with the both students' interests and abilities to create personal examples for each concept that we learn about. These two students require much support but because of the personal nature to the lessons, the students are very successful and happy.

The remaining two students receive most of the instructional aide's attention as well as some from me. The IA reads with and to the students each day. She explains the few concepts that the students don't understand in similar manner to that of mine. Much of her time is spent trying to get the two students to complete the questions or projects as assigned. I often have to interject because they are distracting to the other students and they could fail if a more "persuasive" voice is not heard. These two students need more motivation or persuasion to complete their work.

Description of Learners for this CAR/DBI Project I will focusing on the two students who need motivation and persuasion to be successful in class. Jack and Doug are both very intelligent and complete their work with amazing accuracy when "under the gun." Both students qualify for Special Education services under the realm of ADHD with a Specific Learning Disability manifested in Reading because of a Visual Processing Disorder. For both of these students, manifestations of their behaviors fit the classical descriptions for their respective disability category.

The most frustrating fact of working with these students is that they do not take the medications that have been prescribed to them. Jack states that "it (his medication) depresses me" while Doug doesn't take his medication because "I lose too much weight."

Academic Behavior to Improve I would like to improve these two students abilities to work independently (or in a small group) after receiving support with the reading selections. The students will need to complete the reading, with the instructional aide or myself, and then work on the appropriate assignment without distracting others. Jack and Doug will need to ask appropriate questions to the IA or myself regarding any difficulties they may have with a corresponding assignment. They will then use any explanations provided to apply their knowledge and synthesize an appropriate answer. They can check to see if the answer is accurate before recording it or applying it to the assignment.

Relation to Students' IEP Goals/Objectives: The students were expected to complete work independently and conduct themselves in accordance with good study habits..

System to Monitor Students' Progress To curb Jack and Doug's disruptions of the class after receiving reading support, I will employ a "self-observation" method of determent. The model derived from McCurdy and Shapiro's research (1988) in Lovitt (2001) Preventing School Failure, will utilize an increasing amount of intervention until the behaviors are significantly decreased or non-existent.

To begin the behavior modification, a baseline will need to be developed. For 5 days, prior to the videotaping, the IA will conduct her normal routine of assisting the students with the reading portion of the assignment and assist on the class/homework completion. In addition to the assisting, she will record the type and duration of on task/targeted replacement behaviors. I will continue to remind/encourage/persuade Jack and Doug to complete the assignment.

Planned Intervention After 5 days of initial data collection are completed, examples of appropriate behavior will be provided through role-play. Jack and Doug will be told that the following exercise is intended to decrease or eliminate their amount of time off task (inappropriate and disruptive behavior) and most importantly, increase the amount of time on task.

Next, conferences will be held with parents of the students in the class and permission to videotape will be obtained. I will disclose that the the video tape will be used in multiple ways including behavior modification. I will then hold individual conferences with each student to answer any questions they may have regarding being video taped. Each group of students will receive separate explanations for why there is a need a video of the class. Jack and Doug will know that we are recording behaviors that they exhibit which are conducive to classwork/homework completion. For the next few days (5-10), the class will be recorded. I will edit the recorded data into 10 minute lengths so that it only reflects desired behaviors. The students then, prior to attending class, will view the tape with only desired behaviors.

Each day thereafter will be taped. Using the new data recorded, new tapes will be created that depict desired academic participation.

Throughout the process, the IA will continue to record data regarding the type and frequency of targeted behaviors. A trend towards an increase in the frequency and duration of the targeted behaviors should become evident within 3 to 4 weeks or sooner. It will be our intention for the students to eventually be able to monitor their own behaviors.

ABC Analysis In an effort to get Jack and Doug to complete the work assigned to them, the Instructional Aide and I have come up with several changes in the teaching environment to decrease the antecedents to their behavior. The first antecedent we'll attempt to modify is the daily routine in which students have twenty minutes to locate, read, and write a short response about a particular "Economic Event." Instead of writing the event down, the students will pair up and discuss their article with their buddy. They will be permitted to "weave" personal information into the oral delivery of the review, thus allowing them to express some of their thoughts in an arena in which they normally would not have. After the class is able to do this well, we would like to try a variation of a peer teaching technique. The technique would allow the students to verbally express themselves yet still have them complete the work in a written format. The students will work together to agree on the answers. The students will trade off writing the answers down. Doing so, will allow the students to complete the assignments as a team.

Changes in Consequences? The consequences will change so that the students are not penalized so much for talking about their lives as long as they keep their conversations on the topic of the day. If the students are able to read, understand, and then synthesize their conversations so that they fit with the lesson they will not be penalized. If the students are not able to fit their conversations into the realm of the lesson of the day, they will be redirected by the IA or myself to appropriate conversations that could easily be tailored to the students' interest.

What are my error correction procedures? Should I change them? I will not thank the students for a good class session at then end of class any more. I will thank the students as the class progresses through each portion of the class or as there is a transition. Instead of complimenting them for a cumulative effort, I will compliment their efforts each time I see an appropriate replacement behavior. I also may consult with the students to see if they would like to receive time to socialize after the work has been completed as a reward.

Note I had some difficulties with reminding myself that the purpose of this DBI is to promote positive behaviors not discipline negative behaviors. Many teachers have a hard time remembering to praise the positive and extinguish the negative. I think that as I continue to use more DBI techniques the notion of praising the positive will become more of a habit.

Results I used culturally competent strategies in working with families whose culture or language differed from my own by communicating with parents of several ethnicities while obtaining permission

to video record their teen. I checked with each parent to make sure that it was not against their culture to use such technologies. I was sure to emphasize that their teen was not in trouble and that the teen would benefit from the instruction. They understood that the lessons were intended to be more from a intervention point of view than they were from punishment.

After four consecutive weeks of data-based instruction, Doug and Jack made significant progress towards the termination of distracting behaviors that inhibit their own learning as well as that of their classmates. Doug, though he displayed far fewer distractions is projected to end his distracting behaviors by the end of the fifth week of the data-based instruction process. Jack, the more distractible of the two, has seen even more tremendous results than Doug. He is projected to end his distracting behaviors by the seventh week of data-based instruction.

Both students showed dramatic decreases in distracting behaviors. For example, in the first week of collecting data for the DBI, Jack and Doug had a combined amount of eighty-three distractions in class. In the fourth week, Jack and Doug decreased the amount of combined distractions to thirty-two.

As stated previously, Jack demonstrated that once he learned his distractions inhibited learning, he then decreased his total distractions from fifteen in the first week of DBI to twenty-four in the fourth week. A trend line was created to determine when Jack would extinguish the distracting behaviors. The data predicted that he would end his distractible behaviors by the seventh week of DBI tracking. In conjunction with the decrease in distractible behaviors.was a decrease in the number of corrections offered by the teacher. On days when Jack was most distracting at the beginning of the DBI, he was corrected by the teacher at most five times. At the end of the fourth week, Jack was only corrected by the teacher once and otherwise he corrected himself.

Doug, because of association, seemed to be more distracting than he actually was. The DBI data collection process demonstrated that he was not as distracting as others felt he was. However, the DBI process did correct what distracting behaviors he did display. In the first week of DBI process, Doug had a total of thirteen distracting behaviors and by the end of the fourth week, he had only eleven. Doug did have an increase in distracting behaviors in the second week of the DBI process. His distracting behaviors totaled thirty-four in the second week. Doug also required fewer teacher corrections over the four weeks of DBI. In the first week, he was corrected by the teacher at most, four times on a daily basis and in the final week, he had several days in which he required no teacher correcting.

Advice I would recommend that these two students continue to monitor their behavior. The process of video recording their behaviors was beneficial but I believe that after seeing the results of such data collection, the students are now motivated to curtail their distractions because they understand that they are inhibiting others from learning as well as themselves. After a few debriefing sessions, they both agreed that their behaviors would not be permitted in any institution of higher learning. The students have been self monitoring and a further decrease in inappropriate behaviors has occurred.

If any other educators were interested in replicating such a process, I would recommend that they get a good digital video camera and computer software that allows them to edit easily. One would also need time to view and edit the footage for the students to view by the next day. The process is very intensive for the teacher but is well worth the effort. I was fortunate to have an older student who had the time and knowledge to assist in the editing of the video as I instructed him to. The process worked well with these two older students because I believe they knew that their behaviors were not acceptable. They only needed to see with their own eyes what they were doing, not have a teacher constantly reprimand them.

Reflections I believe the process of implementing a well thought out data-based instructional plan went well. I feel that had I not planned out the process with much thought that the DBI might have failed and

inappropriate behaviors may have increased. I feel that I understand that data that is collected can be invaluable in making appropriate decisions regarding the progress of a student toward a goal. Not only does the data clearly demonstrate how effective decisions that are made in the teaching process are, but also lend themselves to interpretation of successive steps to be taken for future success.

In my experience and through the material I studied, the teaching practices that were implemented with this DBI model were very effective and pertinent to these education and future success in an institution of higher learning for both of these students. Had they not had an opportunity to view their own acts of disruption they may not have fully understood what off-task behavior could do to their educational goals as well as that of others. I really enjoy the fact that I did not really teach them new behaviors, I only showed them what was appropriate. They took it upon themselves to learn and evaluate themselves.

I know that the instructional aide, who was an integral part of the success of this research, also felt rewarded in the fact that the students apologized to her for their actions after one debriefing session. She stated that she felt good about what had occurred because the apology was not teacher driven but student determined. She had worked with these two students for months and had become very frustrated with their antics. She was glad to help these students realize some of their potential.

In the future I will use DBI to tackle more difficult situations such as this. I will also set up DBI systems to monitor student progress towards goals. Normally, I would only collect data to demonstrate success towards an IEP goal/objective but from now on I will keep a running record as to progress. It will allow me to have a more accurate picture of what is going on prior to a deadline. Implementing such a system will also allow me to adjust such goals/objectives in more timely manners.

Summary The first set of data-based decisions I made was in the first few days of monitoring Jack and Doug. To begin the process of data collection I needed to identify exactly which actions were disrupting the class. After a preliminary five day period of observation for the purpose of behavior identification, I chose to monitor six separate distractions the two students were demonstrating.

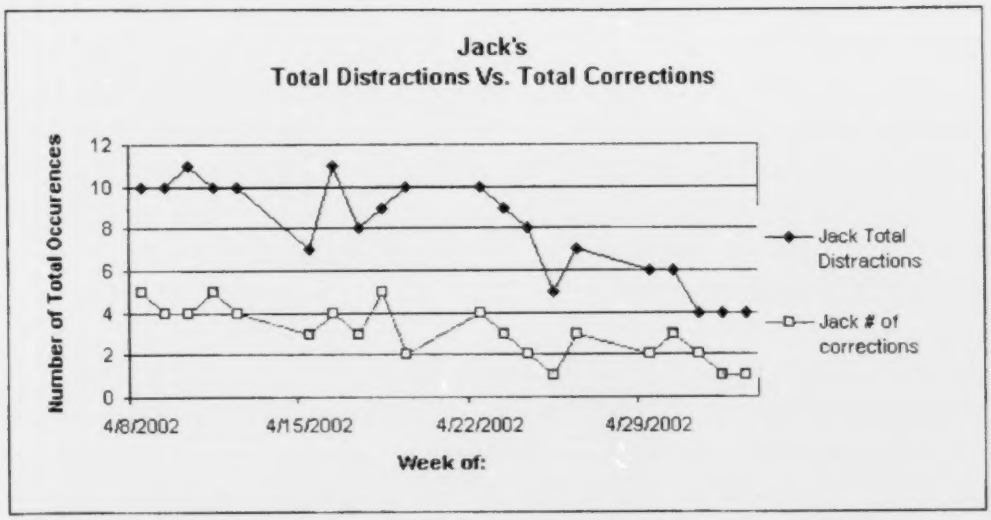
At first I felt compelled to collect the data regarding the two students as it occurred but soon found that it was much easier to continue with my normal interactions with other students in the class and then, later, watch the video and record distractions as they occurred earlier in the day.

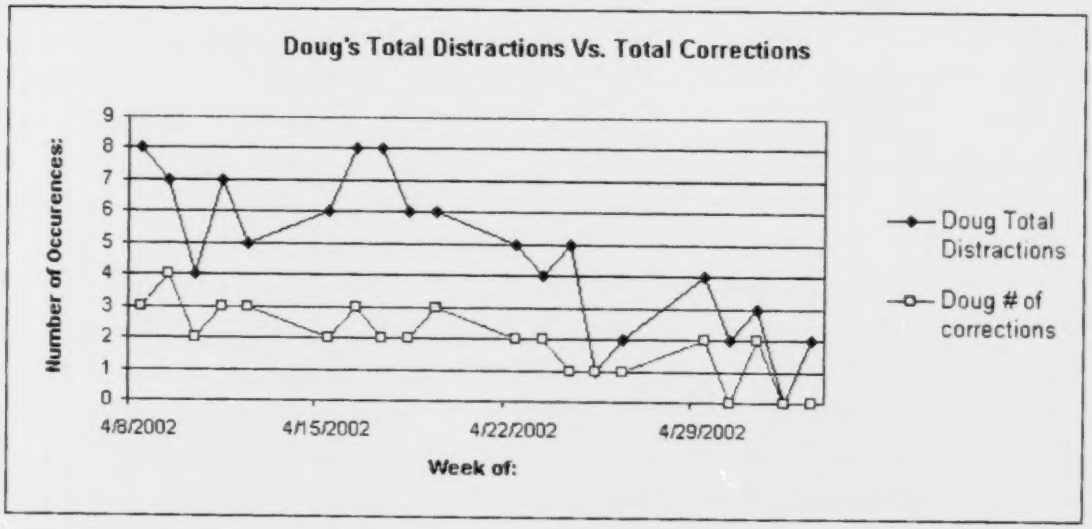
The method of recording the actions and then later reviewing the recording allowed me to focus on the other students and their needs. It also allowed me to look for any antecedents to specific behaviors from an observer's point of view.

I did not need to change the learners' placement in the curriculum or change the learners' objectives for learning.

I think that because I took the time prior to data collection to analyze what exactly I was looking for, it helped me to focus my efforts to only those specific behaviors. Also, by using the preliminary days as baseline gathering time, it allowed me to recognize potential difficulties before they presented themselves in the data collection portion of the project.

I really enjoyed watching the students learn to teach themselves. I have seen that through the use of a data-based instructional approach I can in a sense remove myself from the situation and allow the data that is produced to determine my actions. If the data did not show progress towards the goal I set, I would have changed something about my instruction in an effort to increase the likelihood of success. In this instance I feel like I didn't have to "reflectively teach" because it was the students who were doing





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the reflecting. I was only administering a plan that allowed them to reflect on their actions and self correct.

Jack and Doug responded really well to the video clips of themselves exhibiting desired academic behaviors. Through the data-based instruction process designed for them, they understood that distractions they were making were not only inhibiting their own learning but also that of their classmates. They also were quick to learn that if they increased the amount of time on task at the beginning of each class period that they could "relax" at the end of each class period when the assignment was complete. Each of them in debriefing sessions have stated, that instead of taking "little breaks during class" that they could take "one big" break at the end of class "and have the work done." It is evident that Jack and Doug understand that their distractions were inhibiting their own learning and that of others.

Both Jack and Doug were astonished to see that I had been keeping track of the amount of distractions. When presented with the data and plots for "extinction" of the behaviors, they both were very upbeat and proud of their success.

I used the assessment data to develop IEP goals, objectives appropriate to student needs. The needs were congruent to those that would be needed in a community college setting. The corresponding goals and objectives were all implemented to ease their transition between high school and higher institutions of learning. To do this I developed adaptations and instructional plans in content curriculum by creating lesson plans that were adapted to the liking of each student. Students could choose how they wished to demonstrate mastery of the (economics) concepts. I also systematically adjusted programs and instruction to
promote maximum learning and generalization by creating study groups that were led by the instructional aide or myself. If students were having difficulties with coming up with a project that would demonstrate their learning they were permitted to "piggy back" on the work of other students. The students did not have to reinvent the wheel. Through the use of data based instruction, I used strategies/tools for self-evaluation of teaching/learning and on-going assessment. Not only was I able to see what I was doing in the video recordings but I was also able to see how effective the instruction was by the quality of work that I received from the students. When the students showed quality work, I knew not only that they understood the concepts but also that they were interested in how the concepts actually related to their lives.

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